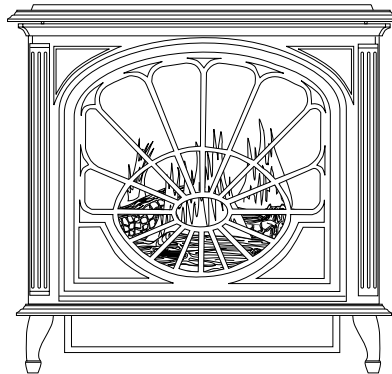


# VANGUARD®

## CAST IRON STOVE B-VENT FREESTANDING FIREPLACE HEATER

### OWNER'S OPERATION AND INSTALLATION MANUAL



### SBVBN(A), SBVBP(A) REMOTE READY

**IMPORTANT:** This fireplace must be installed into approved Vanguard cast iron stove bodies, models SCIVF series and PSCIVF series ONLY. See page 3 of this manual.

**WARNING:** If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury, or loss of life.

#### FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

#### FOR YOUR SAFETY

##### WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electrical switch
- Do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

**WARNING:** Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. Refer to this manual for correct installation and operational procedures. For assistance or additional information consult a qualified installer, service agency, or the gas supplier.

— Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

This appliance may be installed in an aftermarket\* manufactured (mobile) home, where not prohibited by state or local codes.

\* Aftermarket: Completion of sale, not for purpose of resale, from the manufacturer

Save this manual for future reference.


# VANGUARD

## B-VENT FREESTANDING FIREPLACE

### SAFETY INFORMATION

#### WARNINGS

**IMPORTANT: Read this owner's manual carefully and completely before trying to assemble, operate, or service this fireplace. Improper use of this fireplace can cause serious injury or death from burns, fire, explosions, electrical shock, and carbon monoxide poisoning.**


** DANGER: Carbon monoxide poisoning may lead to death!**

This fireplace is a vented product. This fireplace will not produce any gas leakage into your home if properly installed. This fireplace must be properly installed by a qualified service person. The glass door must be properly seated and sealed. If this unit is not properly installed by a qualified service person with glass door properly seated and sealed, gas leakage can occur.

**Carbon Monoxide Poisoning:** Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness, or nausea. If you have these signs, the fireplace may not have been installed properly. **Get fresh air at once!** Have fireplace inspected and serviced by a qualified service person. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung disease or anemia, those under the influence of alcohol, and those at high altitudes.

Propane/LP gas and natural gas are both odorless. An odor-making agent is added to each of these gases. The odor helps you detect a gas leak. However, the odor added to these gases can fade. Gas may be present even though no odor exists.

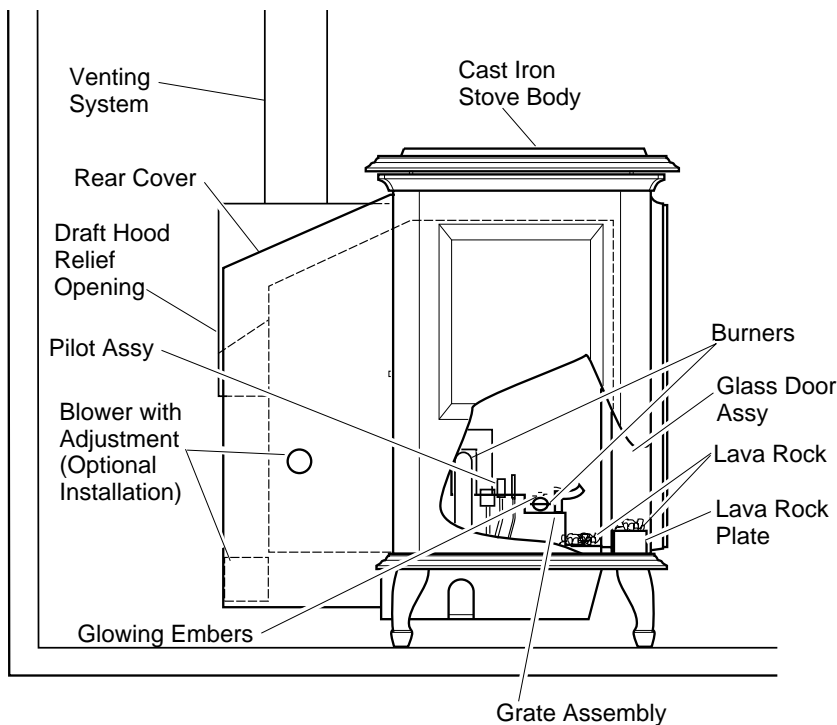
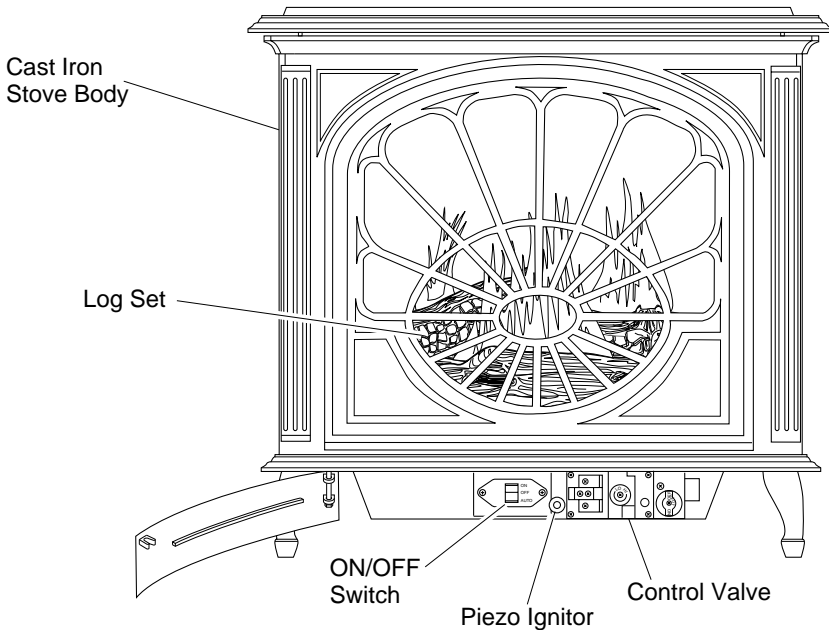
Make certain you read and understand all Warnings. Keep this manual for reference. It is your guide to safe and proper operation of this fireplace.

** WARNING: Any change to this fireplace or its controls can be dangerous.**

1. This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases unless a certified kit is used.
2. For propane/LP fireplace, do not place propane/LP supply tank(s) inside any structure. Locate propane/LP supply tank(s) outdoors. To prevent performance problems, do not use propane/LP fuel tank of less than 100 lbs. capacity.
3. If you smell gas
  - shut off gas supply
  - do not try to light any appliance
  - do not touch any electrical switch; do not use any phone in your building
  - immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions
  - if you cannot reach your gas supplier, call the fire department.
4. Never install the fireplace
  - in a recreational vehicle
  - where curtains, furniture, clothing, or other flammable objects are less than 42" from the front, top, or sides of the fireplace
  - in high traffic areas
  - in windy or drafty areas
5. This fireplace reaches high temperatures. Keep children and adults away from hot surfaces to avoid burns or clothing ignition. Fireplace will remain hot for a time after shut-down. Allow surfaces to cool before touching.
6. Carefully supervise young children when they are in the room with fireplace.
7. Do not modify this fireplace under any circumstances. Any parts removed for servicing must be replaced prior to operating fireplace.
8. Turn fireplace off and let cool before servicing, installing, or repairing. Only a qualified service person should install, service, or repair this fireplace. Have fireplace inspected annually by a qualified service person.
9. You must keep control compartments, burners, and circulating air passages clean. More frequent cleaning may be needed due to excessive lint and dust from carpeting, bedding material, pet hair, etc. Turn off the gas valve and pilot light before cleaning fireplace.
10. Have venting system inspected annually by a qualified service person. If needed, have venting system cleaned or repaired. See *Cleaning and Maintenance*, page 21.
11. Keep the area around your fireplace clear of combustible materials, gasoline, and other flammable vapor and liquids. Do not run fireplace where these are used or stored. Do not place items such as clothing or decorations on or around fireplace.
12. Do not use this fireplace to cook food or burn paper or other objects.
13. Never place anything on top of freestanding fireplace.
14. Do not use any solid fuels (wood, coal, paper, cardboard, etc.) in this fireplace. Use only the gas type indicated on fireplace nameplate.
15. This appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the *National Electrical Code, ANS/NFPA 70*, or the *Canadian Electrical Code, CSA C22.1*.
16. Do not obstruct the flow of combustion and ventilation air in any way. Provide adequate clearances around air openings into the combustion chamber along with adequate accessibility clearance for servicing and proper operation.
17. Do not install fireplace directly on carpeting, vinyl tile, or any combustible material other than wood. The fireplace must set on a metal or wood panel extending the full width and depth of the fireplace.
18. Do not use fireplace if any part has been exposed to or under water. Immediately call a qualified service person to arrange for replacement of the unit.
19. Do not operate fireplace if any log is broken.
20. Do not use a blower insert, heat exchanger insert, or other accessory not approved for use with this fireplace.
21. Do not operate fireplace with glass door removed, cracked, or broken.
22. This heater must be properly connected to a vent system. This heater is equipped with a vent safety shutoff system.

# OWNER'S MANUAL

## PRODUCT IDENTIFICATION



**Figure 1 - Vanguard B-Vent Freestanding Fireplace Shown Installed in Approved Vanguard Cast Iron Stove Body Models SCIVF Series and PSCIVF Series Only**

## LOCAL CODES

Install and use fireplace with care. Follow all local codes. In the absence to local codes, use the current *National Fuel Gas Code ANS Z223.1*, also known as NFPA 54\* (USA) or the current *CAN/CGA-B149[.1 or .2] Installation Codes* (Canada).

\*Available from:

American National Standards Institute, Inc.  
1430 Broadway  
New York, NY 10018

National Fire Protection Association, Inc.  
Batterymarch Park  
Quincy, MA 02269

## PRODUCT FEATURES

### OPERATION

This B-vent freestanding fireplace is clean burning and vents vertically. Heat is generated by both realistic flames and glowing embers. When used without the blower accessory, the fireplace requires no electricity making it ideal for emergency backup heat.

### PIEZO IGNITOR

This fireplace has a piezo ignitor. This system requires no matches, batteries, or other sources to light fireplace.

# VANGUARD

## B-VENT FREESTANDING FIREPLACE

### PRE-INSTALLATION PREPARATION

**⚠ WARNING:** A qualified service person must install fireplace. Follow all local codes.

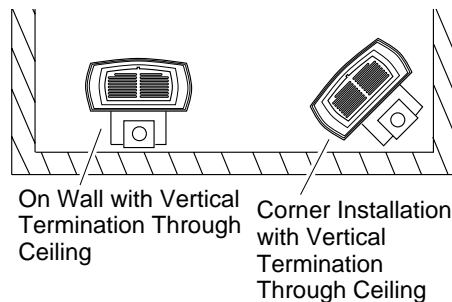
**⚠ CAUTION:** This fireplace creates warm air currents. These currents move heat to wall surfaces next to fireplace. Installing fireplace next to vinyl or cloth wall coverings or operating fireplace where impurities (such as tobacco smoke, aromatic candles, cleaning fluids, oil or kerosene lamps, etc.) in the air exist, may discolor walls.

### LOCATION AND SPACE REQUIREMENTS

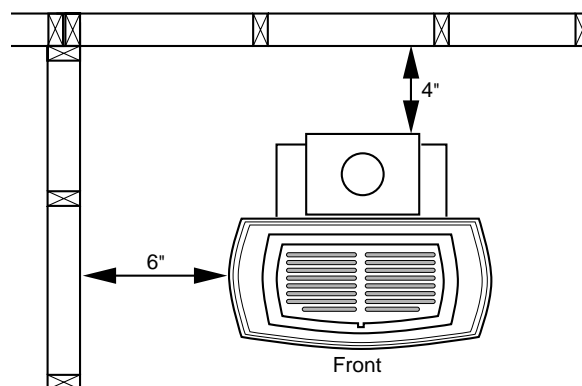
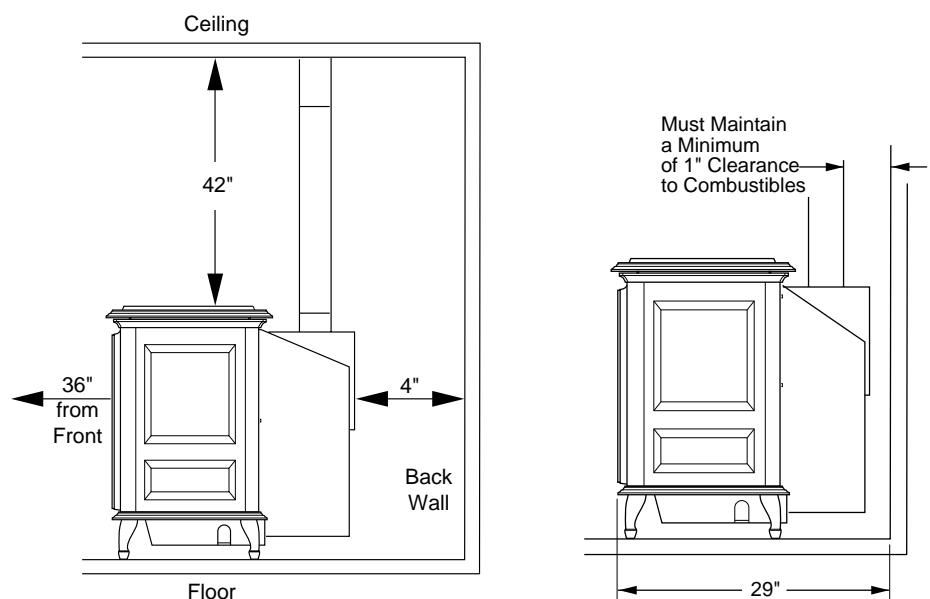
Determine the safest and most efficient location for your Vanguard B-vent freestanding fireplace. Make sure that rafters and wall studs are not in the way of the venting system. Choose a location where the heat output is not affected by drafts, air conditioning ducts, windows, or doors. Figure 2 shows some common locations. Read all venting information in this manual. Be aware of all restrictions and precautions before deciding the exact location for your fireplace.

When deciding the location of your fireplace, follow these rules:

1. Do not connect this fireplace to a chimney flue serving a separate solid-fuel burning fireplace or appliance.
2. Due to high temperatures, do not locate this fireplace in high traffic areas or near furniture or draperies.
3. Proper clearances must be maintained, see Figure 3 and Figure 4 on page 5.
4. This stove is a freestanding unit designed to set directly on the floor. If your fireplace is to be installed directly on carpeting, vinyl tile, or any combustible material other than wood, it must be installed on a metal or wood panel extending the full width and depth of the fireplace. See Figure 5, page 5.



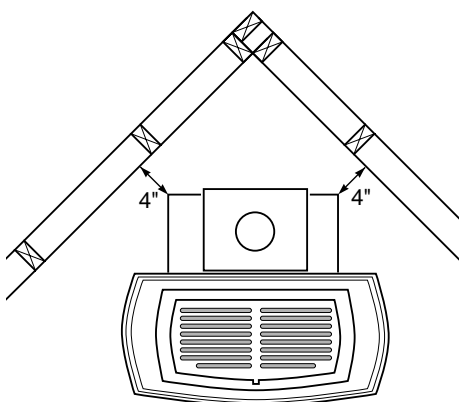
**Figure 2 - Common Freestanding Fireplace Locations**



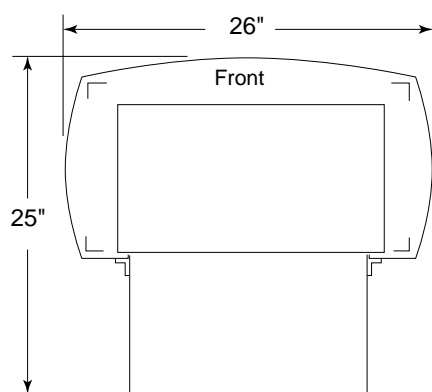
**Figure 3 - Clearances for Standard Installation**

## PRE-INSTALLATION PREPARATION

*Continued*



**Figure 4 - Clearance for Corner Installation**

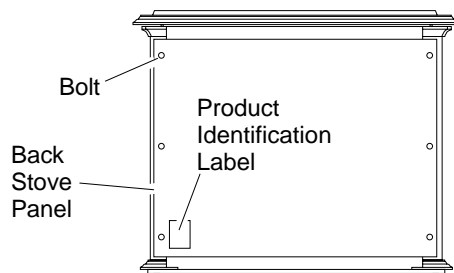


**Figure 5 - Freestanding Fireplace Bottom Dimensions**

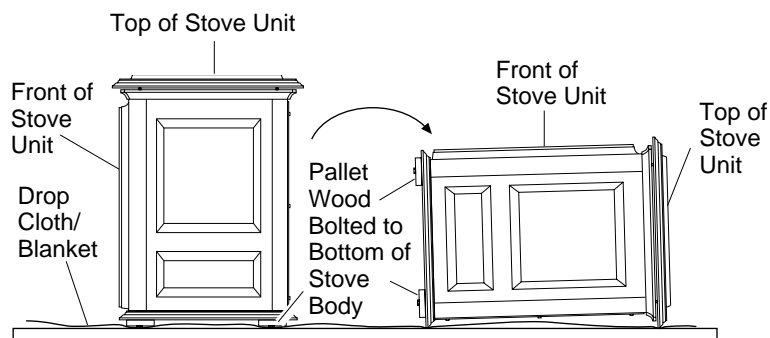
## FREESTANDING FIREPLACE ASSEMBLY

### STOVE BODY ASSEMBLY

1. Lift off corrugated box enclosing stove body crating.
2. Remove all screws fastening the wood frame enclosure. Spread wood frame open and lift away from plastic-bagged stove body. The bottom pieces of pallet wood will remain bolted to the stove body.
3. Remove plastic bag from stove body.
4. Remove back panel from stove (see Figure 6). Use an adjustable wrench or a 10 mm socket. Remove six (6) bolts and washers. Keep bolts and washers to reattach back panel later.
5. Remove all contents from inside stove cavity. Contents include:
  - (1) - Stove bottom
  - (4) - Legs with leg leveler bolts
  - (1) - Bottom door
  - (1) - Top grate
  - (1) - Hardware kit bag with fasteners
6. Carefully lay stove body on back to attach bottom components to stove body (see Figure 7). Rest stove on drop cloth or blanket to avoid scratching stove edges.

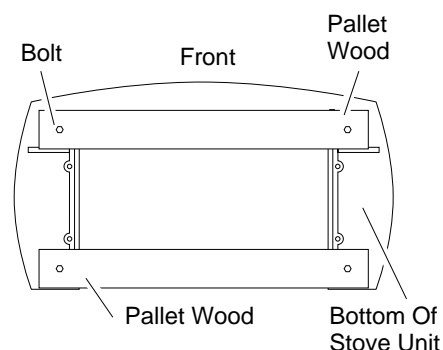


**Figure 6 - Removing Back Panel**



**Figure 7 - Laying Down Stove On Side**

7. Remove remaining pallet wood attached to bottom of stove body (see Figure 8). Use an adjustable wrench to remove bolts.
8. Fasten each leg to stove with four (4) M8 x 1.25 - 20mm bolts. Use a flat washer and lock washer with each bolt. Tighten bolts into threaded holes on stove body (see Figures 9 and 10, page 6). Use an adjustable wrench or a 12mm socket.
9. Fasten stove bottom to stove with four (4) M6 x 1 - 25mm bolts. Use a flat washer and lock washer with each bolt. Tighten bolts into threaded holes on stove body (see Figure 9 and 11, page 6). Use an adjustable wrench or a 10mm socket.



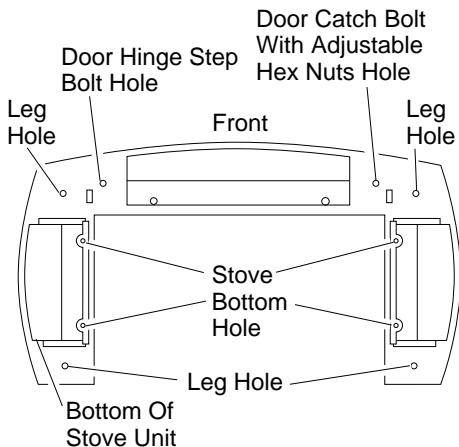
**Figure 8 - Removing Pallet Wood From The Bottom of The Stove**

# VANGUARD

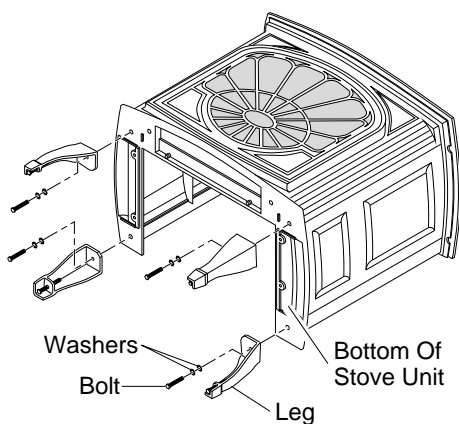
## B-VENT FREESTANDING FIREPLACE

### FREESTANDING FIREPLACE ASSEMBLY

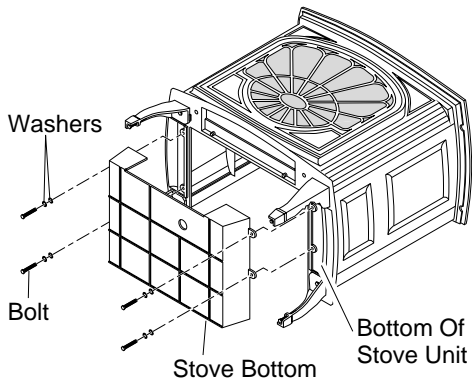
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**Figure 9 - Locating Threaded Holes for Stove Bottom, Legs, and Door Attachment**

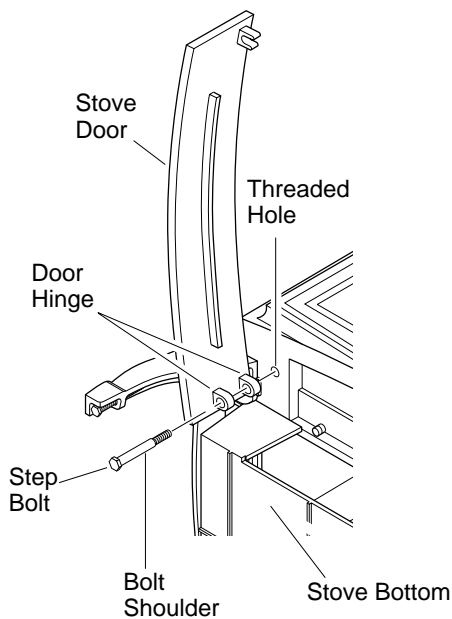


**Figure 10 - Attaching Stove Legs**

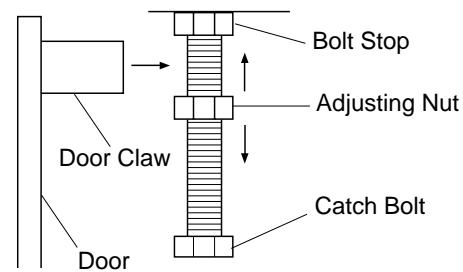


**Figure 11 - Attaching Stove Bottom**

10. Attach stove door by inserting step bolt through door hinge pivot hole and into threaded hole in stove body (see Figures 9 and 12). Use an adjustable wrench or a 12mm socket to fasten step bolt. Tighten step bolt until snug. Make sure door moves freely.
11. Install door catch bolt (M8 x 1.25-55mm with two M8 hex nuts) into threaded hole on stove body (see Figure 9). Use an adjustable wrench or a 12mm socket. The catch bolt has two hex nuts attached to it (see Figure 13). The top nut is a bolt stop and the bottom nut is for door leveling adjustment.
12. Check general catch bolt alignment with door claw. Make final adjustment and door leveling after stove is in normal standing position.
13. Carefully lift stove back up on its four attached legs.
14. Set top grate into stove top.



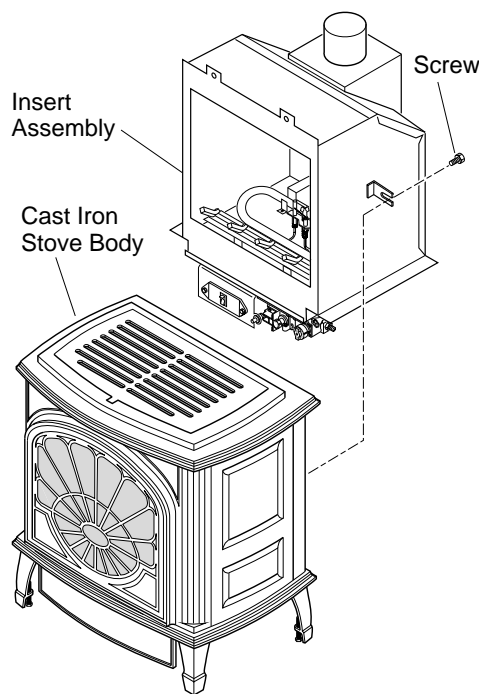
**Figure 12 - Attaching Stove Door**



**Figure 13 - Catch Bolt and Door Claw Orientation**

### INSTALLING FIREPLACE INTO STOVE BODY

1. Carefully lift firebox and place into stove body from the rear of stove.
2. Using screws provided, attach firebox to back of stove.



**Figure 14 - Installing Firebox Into Cast Iron Stove Body**

## FREESTANDING FIREPLACE ASSEMBLY

**Continued**

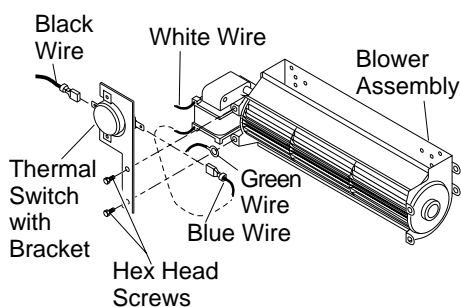
### INSTALLING OPTIONAL BLOWER ACCESSORY

**NOTICE:** If installing blower in an existing fireplace with gas connections, shut off gas supply and disconnect heater from gas supply. Contact a qualified service person to do this.

#### Attaching Thermal Switch to DA3610T Thermostatically-Controlled Blower

When installing the DA3610T thermostatically-controlled blower accessory, you must first secure the thermal switch to the blower.

1. Remove the two hex head screws on the blower assembly as shown in Figure 15.
2. Place the green wire between the bottom hole on the thermal switch bracket and the bottom hole on the blower assembly. Insert one of the hex screws into all three pieces and tighten.
3. Insert the top screw through the thermal switch bracket and into the blower assembly. Tighten screw.
4. Connect the blue wire on the blower assembly to the right side of the thermal switch.
5. Connect the black wire to the left side of the thermal switch.



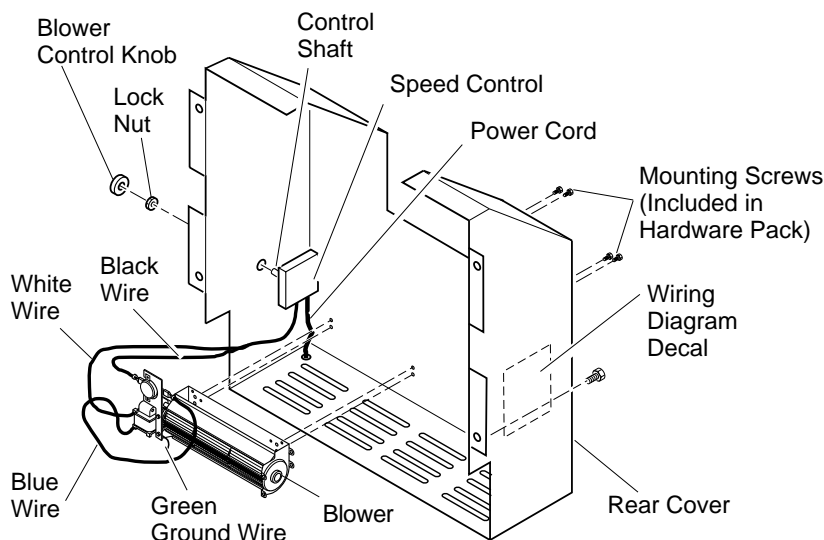
**Figure 15 - Attaching Thermal Switch to DA3610T Thermostatically Controlled Blower Accessory**

#### Installing GA3700/DA3610T Blowers

1. Align the holes in the top mounting tabs of blower with holes in wall of rear cover (see Figure 16). Using the 4 screws provided, mount blower and tighten screws securely.

*Note:* For DA3610T, make sure the thermal switch has been properly installed to fit against the back of the firebox.

2. Make sure all wire connections to terminals on blower motor (and thermal switch where applicable) are securely attached and that the screw retaining the green ground wire is tight.
3. Place speed control on left inside of rear cover and push the plastic control shaft through opening (see Figure 16).
4. While supporting speed control, secure control shaft with lock nut by pushing and turning lock nut with pliers clockwise until tight against the side of rear cover. Place control knob provided onto shaft (see Figure 16).
5. Plug in blower power cord.
6. Check to make sure that the power cord is completely clear of the blower wheel and that there are no other foreign objects in blower wheel. Turn blower on and check for operation. Turn blower off by rotating knob fully counterclockwise before continuing.



**Figure 16 - Installing Optional Blower Accessory (Thermostat Model DA3610T Shown)**

**WARNING:** Never touch the blower wheel while in operation.

7. Peel off the backing paper and stick the supplied wiring diagram decal on the inside of rear cover on right side opposite control.

**WARNING:** Failure to position the parts in accordance with supplied diagrams or failure to use only parts specifically approved with this heater may result in damage or personal injury.

8. Connect or reconnect gas supply to fireplace per *Connecting Fireplace to Gas Supply* on page 13 of this manual.

**WARNING:** A qualified service person must connect fireplace to gas supply. Follow all local codes.

# VANGUARD

## B-VENT FREESTANDING FIREPLACE

### FREESTANDING FIREPLACE ASSEMBLY

*Continued*

#### INSTALLING REAR COVER

1. Lift rear panel over vent pipe connection on firebox. Rear cover will rest on the bottom ledge of the stove body.
2. Using screws provided, attach rear cover to back of stove body. See Figure 17.

**IMPORTANT:** This rear cover must be securely in place before venting pipes are installed.

### VENTING INSTALLATION

**⚠ WARNING:** Read all instructions completely and thoroughly before attempting installation. Failure to do so could result in serious injury, property damage, or loss of life. Operation of improperly installed and maintained venting system could result in serious injury, property damage, or loss of life.

**NOTICE:** Failure to follow these instructions will void the warranty.

### INSTALLATION PRECAUTIONS

Consult local building codes before beginning the installation. Only a qualified service person should install venting system. The installer must follow these safety rules:

- Wear gloves and safety glasses for protection
- Use extreme caution when using ladders or when on roof tops
- Be aware of electrical wiring locations in walls and ceilings

The following actions will void the warranty on your venting system:

- Installation of any damaged venting component
- Unauthorized modification of the venting system
- Installation of any component part not manufactured or approved by DESA International
- Installation other than as instructed by these instructions

Your fireplace is approved for use with any listed gas vent. A listed gas vent is a factory made and listed system designed, and installed exclusively for removing products of combustion, excess air, and dilution air resulting from burning fuel gas. Metal vents, the most common type of vent, employ double wall construction enclosing an insulating air space. This air space both helps keep flue gases warm and reduce heat transferred to nearby combustibles. This appliance is equipped with a safety control system designed to protect against improper venting of combustion products.

It is very important that the venting system maintain its balance between the combustion air intake and the flue gas exhaust. Certain limitations apply to vent configurations and must be strictly followed.

**⚠ WARNING:** This gas fireplace and vent assembly must be vented directly to the outside. The venting system must NEVER be attached to a chimney serving a separate solid fuel burning appliance.

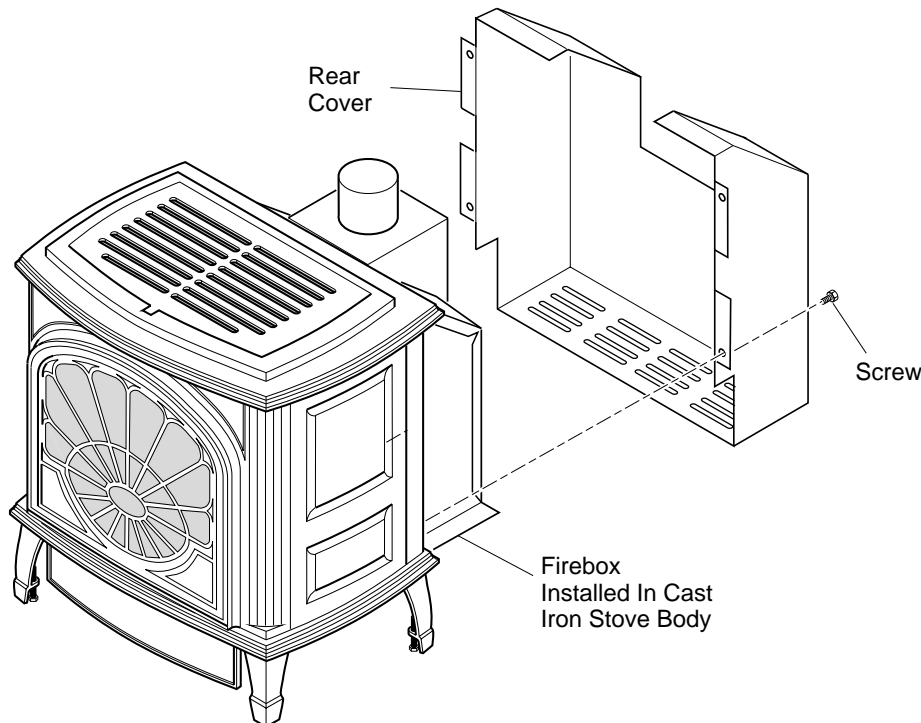


Figure 17 - Installing Rear Cover



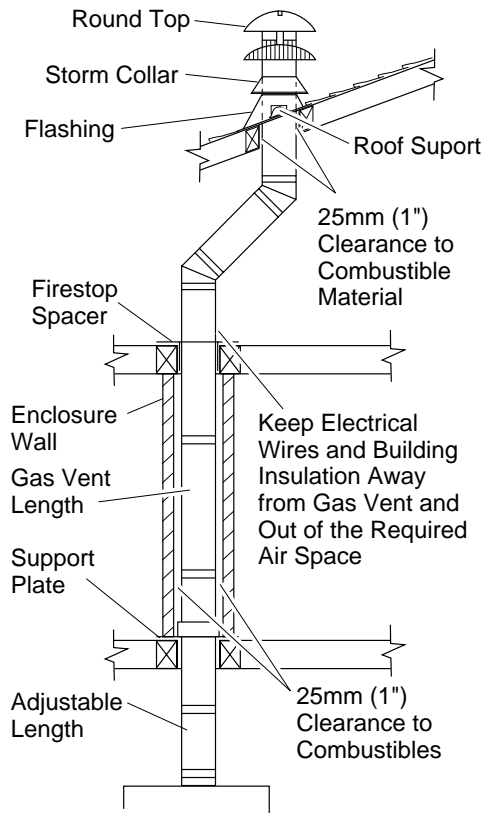
## VENTING INSTALLATION

*Continued*

### TYPE B-VENT INSTALLATION (Listed B-0 or Greater)

Before beginning installation be sure that the overall height and gas vent size conform to building code requirements. Gas vents extending through pitched roofs can extend a minimum height of at least 600 mm (2') higher than any obstruction within 3m (10'). Gas vents extending through flat roofs are required to extend at least 600 mm (2') above the roof and at least 600 mm (2') higher than any portion of the building or adjoining building within 3m (10') of the gas vent.

- Venting instruction contained in this manual may or may not apply to your area. Consult your local authority for requirement in your area.
- Where the gas vent extends through accessible spaces, it should be enclosed to avoid personal contact and damage. Enclosure walls should have a fire rating equal to or greater than the floors through which the gas vent passes except in single or two-family dwellings.
- Situate the gas vent in the structure so that it can be installed without cutting joists, sills, plates, or major load bearing partitions or members. It is also important to locate the base of the gas vent as near as possible to the heating appliance.
- This heater must be properly connected to a venting system. This heater is equipped with a vent safety shutoff system.
- Use only vents labeled "FOR EXTERIOR USE" above the roofline.
- Consult the authority having jurisdiction to select the correct gas vent diameter. Avoid using a larger than necessary diameter.

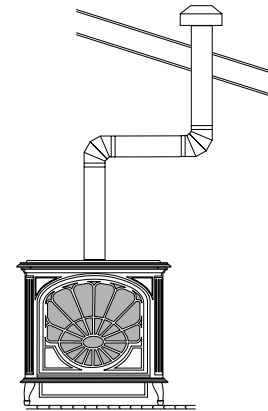


**Figure 18 - Typical B-Vent Installation**

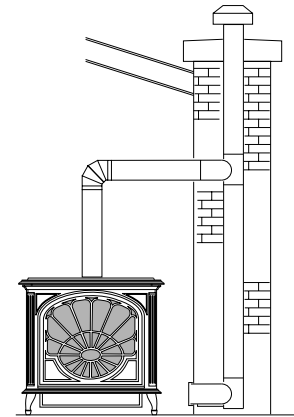
### INSTALLATION OF LISTED B-1 VENT

**⚠ WARNING:** Installation should only be made by qualified persons who are familiar with the safety procedures required for the installation of the product, who are equipped with the proper tools and testing instruments, and who have achieved proper certification of licensing. Installations made by unqualified persons can result in the risk of injury or electrical shock which can be serious or even fatal.

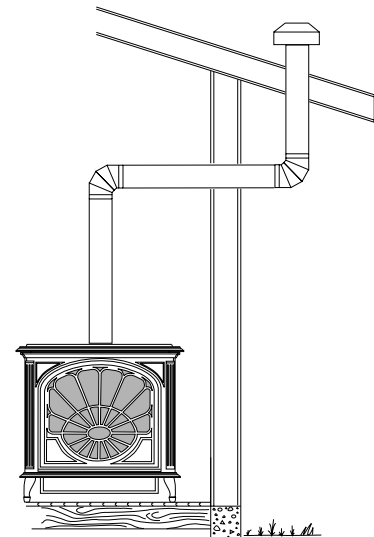
Figure 19, 20 and 21 show other options for the gas vent. When venting through a side wall your vent pipe must have the proper temperature rating (see Figure 21). Manufacturer's clearances must also be maintained. Consult the authority having jurisdiction in your area regarding venting through side wall.



**Figure 19 - Vertical Venting Through Ceiling Using Two 90° Elbows**



**Figure 20 - Vertical Venting Configuration Through Chimney**



**Figure 21 - Venting Through a Side Wall**

*Continued*

# VANGUARD

## B-VENT FREESTANDING FIREPLACE

### VENTING INSTALLATION

*Continued*

#### INSTALLING VENT SYSTEM IN A CHASE

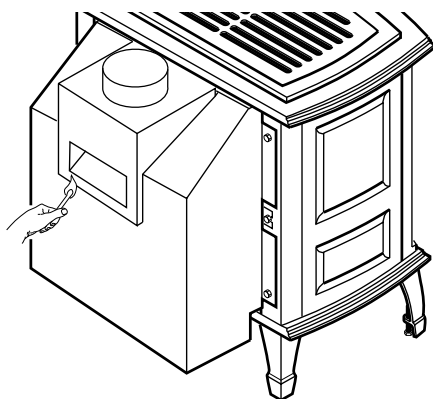
A chase is a vertical box-like structure built to enclose venting that runs along the outside of a building. A chase is not required for such venting.

**NOTICE: Treatment of firestops and construction of the chase may vary from building type to building type. These instructions are not substitutes for the requirements of local building codes. You must follow all local building codes.**

*Note:* When installing in a chase, you should insulate the chase as you would the outside walls of your home. This is especially important in cold climates. Minimum clearance between vent pipes and combustible materials such as insulation is 1".

#### CHECKING VENT CAPACITY

Complete all gas piping, electrical, and vent connections. After adjusting the fireplace and lighting the main burners, allow a couple of minutes for warm-up. Hold a lighted match just under the rim of the draft hood relief opening. Proper venting will draw the flame toward or into the draft hood. Improper venting, indicated by escape or spillage of burned gas, will cause match to flicker or go out. Smoke from a cigarette will also be pulled into the draft hood if the vent is drawing properly.



**Figure 22 - Test for Proper Venting**

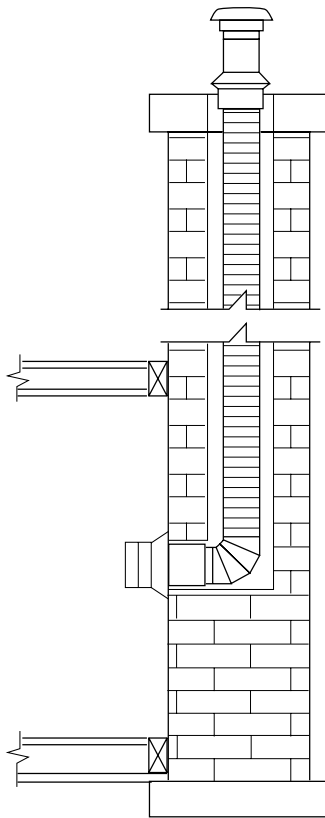
#### CHIMNEYS

- Complete familiarity with chimney condition, height, size, clearance to combustibles and other factors is essential.

**NOTICE: Consult the authority having jurisdiction in your area regarding masonry chimney venting applications.**

**NOTICE: A complete chimney inspection by a qualified person should be performed.**

- Appliances using B-vent connectors to vent into a masonry or factory-built chimney should not exceed 1 1/2 feet in length for every inch of connector diameter (3" vent connector has a maximum 4 1/2 foot length; 5" connector has maximum 7 1/2 foot length).
- Oversized chimneys should be relined with appropriate listed relining systems.
- Cleanout access may be required.



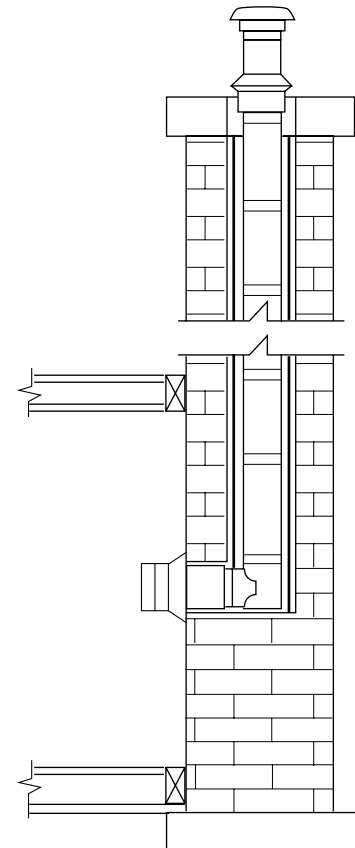
**Figure 23 - Straight Installation into Masonry Chimney**

#### RELINING SYSTEMS

- Suitability and approval of relining materials should be determined.
- Condition, size, height, and termination of the chimney to be relined must be determined.
- No substitution of components should be made.
- Joints and connectors should be made according to manufacturer's instructions.

**NOTICE: Consult the authority having jurisdiction in your area regarding listed chimney liner venting applications.**

**WARNING: Operation of improperly installed and maintained venting system could result in serious injury, property damage, or loss of life.**



**Figure 24 - Typical Straight Installation with Listed Chimney Liner**

## VENTING INSTALLATION

### *Continued*

### HIGH ALTITUDE INSTALLATION

Your Vanguard B-vent freestanding fireplace heater has been AGA tested and approved for elevations from 0-2000 feet and CGA certified for elevations from 0-4500 feet.

When installing this fireplace at an elevation above 2000 feet (in the USA), you may need to decrease the input rating by changing the existing burner orifice to a smaller size. Reduce input 4% for each 1000 feet above sea level. Check with your local gas company for proper orifice size identification and proper orifice for your location.

When installing this fireplace at an elevation above 4500 feet (in Canada), check with local authorities.

For assistance with any high altitude installation contact DESA International's Technical Service Department at 1-800-DESA-LOG (1-800-337-2564).

## TROUBLESHOOTING VENTING PROBLEMS

Most venting problems are caused by incorrect vent sizing, improper installation, or inadequate air supply. A preliminary check for a field problem might include:

- Using a draft meter to determine if venting system draft meets manufacturer's specifications
- Checking the vent sizing according to manufacturer's specifications, appliance input, and venting configuration
- Examining the entire venting system for faults such as disconnected joints for damaged vent sections
- Making sure vent and air openings are not obstructed

If these procedures do not reveal the source of the problem, troubleshooting may include attention to common venting problems.

### FLUE GAS SPILLAGE

Spillage occurs when flue gases cannot exit the vent system and back up into the dwelling. A primary symptom of appliances equipped with a Vent Safety Shutoff System (flue spill switch) is unexplained appliance shutoffs. Other symptoms of flue gas spillage at the draft hood include condensation on walls and windows and/or noticeable odors. Spillage may also result in the release of carbon monoxide, a colorless, odorless, highly toxic gas. A simple spillage test can be conducted if spillage is suspected. See *Checking Gas Connection*, pages 13 and 14.

### CAUSES OF SPILLAGE AND CORRECTIVE ACTION

#### Incorrect Vent Sizing

If the vent is too small or too short, spillage may occur. If the vent is too large, excessive dilution air may cool flue gases and reduce draft, causing spillage. The vent cap size should also be checked. Check manufacturer's instructions, appliance input rating, and appropriate sizing tables.

#### Venting Condition

Loose joints can affect draft and cause spillage. "Mashed" vent sections and damaged vent caps can restrict flow and cause spillage. Examine and replace as needed.

#### Obstructions

Small animals or birds may get into and block the vent or draft hood outlet. Dust, lint, and foreign objects may obstruct air inlets. Remove obstructions and clean openings.

#### Lateral Run

Lengthy horizontal or non-vertical runs cause resistance to flow and may reduce draft enough to cause spillage. The pitch of lateral runs can also be a problem; lateral runs should be pitched 1/4" rise per foot of horizontal run from the appliance to the vent.

#### Elbows

Too many elbows cause excessive restriction of flow and may result in spillage. Usually, two 90° turns can be tolerated in a properly sized venting system. More than two may cause problems and necessitate changing the system.

#### Negative Pressure in the Dwelling

An extremely tight house may not supply adequate combustion and venting air. Use of mechanical exhaust such as a dryer vent or range vent may worsen the problem. An air exchange system must be installed in the dwelling to correct this problem.

#### Flue Gas Cooling

Venting exposed to extremely cold temperatures or venting of single wall construction loses heat needed to maintain draft; massive masonry chimneys absorb needed heat. If the flue gases cool excessively, draft is reduced and spillage may result. Use proper materials, insulate and protect properly, reline when necessary.

#### Down Drafts

In certain wind conditions and in certain relationships with nearby structures and objects, high pressure conditions may affect draft negatively. Relocate the vent cap, raise its height, or use an approved high wind cap.

# VANGUARD

## B-VENT FREESTANDING FIREPLACE

### FIREPLACE INSTALLATION

**NOTICE:** This heater is intended for use as supplemental heat. Use this heater along with your primary heating system. Do not install this heater as your primary heat source. If you have a central heating system, you may run system's circulating blower while using heater. This will help circulate the heat throughout the house. In the event of a power outage, you can use this heater as your primary heat source.

#### CHECK GAS TYPE

Use proper gas type for the fireplace unit you are installing. If you have conflicting gas types, do not install fireplace. See dealer where you purchased the fireplace for proper fireplace according to your gas type.

#### INSTALLING GAS PIPING TO FIREPLACE LOCATION

**WARNING:** A qualified service person must connect fireplace to gas supply. Follow all local codes.

**CAUTION:** For propane/LP units, never connect heater directly to the propane/LP supply. This heater requires an external regulator (not supplied). Install the external regulator between the heater and propane/LP supply.

#### Installation Items Needed

Before installing fireplace, make sure you have the items listed below.

- external regulator (supplied by installer)
- piping (check local codes)
- sealant (resistant to propane/LP gas)
- manual shutoff valve \*
- test gauge connection \*
- sediment trap
- tee joint
- pipe wrench
- approved flexible gas line with gas connector (if allowed by local codes) (not provided)

\* An A.G.A. design-certified manual shutoff valve with 1/8" NPT tap is an acceptable alternative to test gauge connection. Purchase the A.G.A. design-certified manual shutoff valve from your dealer.

For propane/LP connections only, the installer must supply an external regulator. The external regulator will reduce incoming gas pressure. You must reduce incoming gas pressure to between 11 and 14 inches of water. If you do not reduce incoming gas pressure, heater regulator damage could occur. Install external regulator with the vent pointing down as shown in Figure 25. Pointing the vent down protects it from freezing rain or sleet.

**CAUTION:** Use only new, black iron or steel pipe. Internally-tinned copper tubing may be used in certain areas. Check your local codes. Use pipe of 1/2" diameter or greater to allow proper gas volume to fireplace. If pipe is too small, undue loss of pressure will occur.

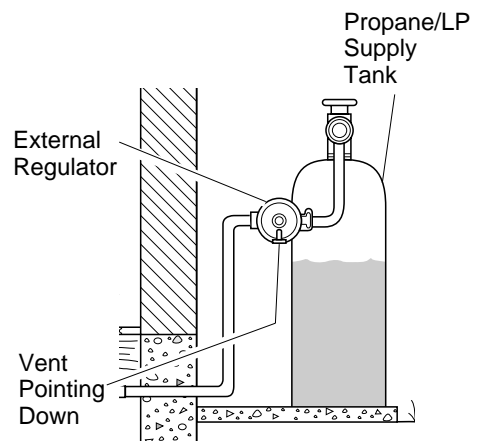
Installation must include a manual shutoff valve, union, and plugged 1/8" NPT tap. Locate NPT tap within reach for test gauge hook up. NPT tap must be upstream from fireplace (see Figure 26, page 13).

Check your building codes for any special requirements for locating manual shutoff valve to fireplaces.

Apply pipe joint sealant lightly to male threads. This will prevent excess sealant from going into pipe. Excess sealant in pipe could result in clogged fireplace valves.

**CAUTION:** Use pipe joint sealant that is resistant to liquid petroleum (LP) gas.

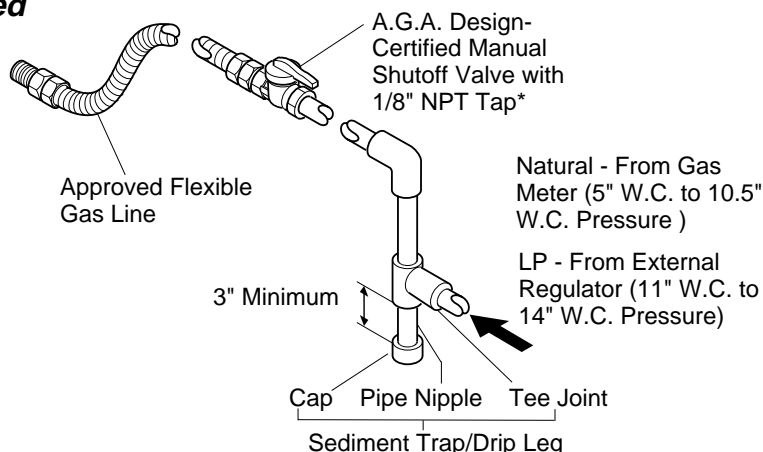
Install sediment trap/drip leg in supply line as shown in Figure 26, page 13. Locate sediment trap/drip leg where it is within reach for cleaning. Locate sediment trap/drip leg where trapped matter is not likely to freeze. A sediment trap traps moisture and contaminants. This keeps them from going into fireplace gas controls. If sediment trap/drip leg is not installed or is installed wrong, fireplace may not run properly.



**Figure 25 - External Regulator with Vent Pointing Down (Propane/LP Only)**

## FIREPLACE INSTALLATION

*Continued*



\* The A.G.A. design-certified manual shutoff valve may be supplied with the appliance or you can purchase it from your dealer.

**Figure 26 - Gas Connection**

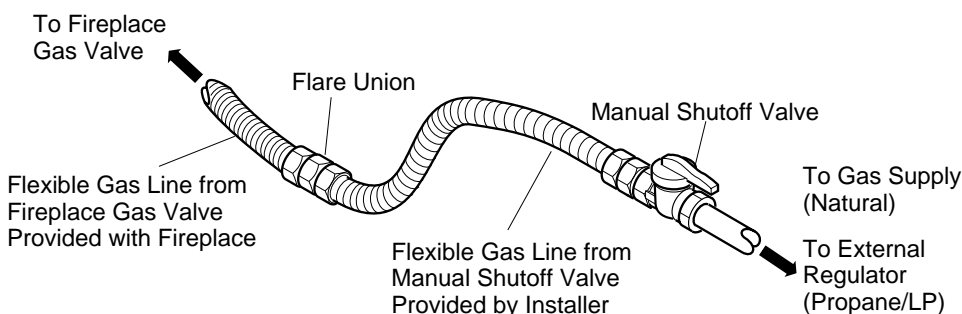
## CONNECTING FIREPLACE TO GAS SUPPLY

### Installation Items Needed

- 5/16" hex socket wrench or nut-driver
- sealant (resistant to propane/LP gas, not provided)

1. Open lower door panel.
2. Route flexible gas line (provided by installer) from manual shutoff valve to fireplace. Route flexible gas supply line through slot in stove bottom and attach to valve.

3. Attach a 45° flare union gas connector to flexible gas line from gas supply (see Figure 27). Connect flare union to flexible gas line attached to gas regulator of fireplace (see Figure 27).
4. Check all gas connections for leaks. See *Checking Gas Connections*.



**Figure 27 - Attaching Flexible Gas Lines Together**

## CHECKING GAS CONNECTIONS

**⚠ WARNING:** Test all gas piping and connections for leaks after installing or servicing. Correct all leaks at once.

**⚠ WARNING:** Never use an open flame to check for a leak. Apply commercial leak test solution to all gas joints. Bubbles forming show a leak. Correct all leaks at once.

## Pressure Testing Gas Supply Piping System

### Test Pressures In Excess Of 1/2 PSIG (3.5 kPa)

1. Disconnect fireplace and its individual manual shutoff valve from gas supply piping system. Pressures in excess of 1/2 psig (3.5 kPa) will damage fireplace gas regulator.
2. Cap off open end of gas pipe where manual shutoff valve was connected.
3. Pressurize supply piping system by either opening propane/LP supply tank valve for propane/LP gas fireplace or opening main gas valve located on or near gas meter for natural gas fireplace, or using compressed air.
4. Check all joints of gas supply piping system. Apply commercial leak test solution to all gas joints. Bubbles forming show a leak. Correct all leaks at once.
5. Reconnect fireplace and manual shutoff valve to gas supply. Check reconnected fittings for leaks.

# VANGUARD

## B-VENT FREESTANDING FIREPLACE

### FIREPLACE INSTALLATION

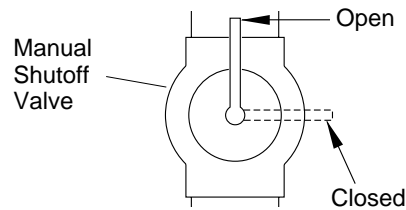
#### *Continued*

#### Test Pressures Equal To or Less Than 1/2 PSIG (3.5 kPa)

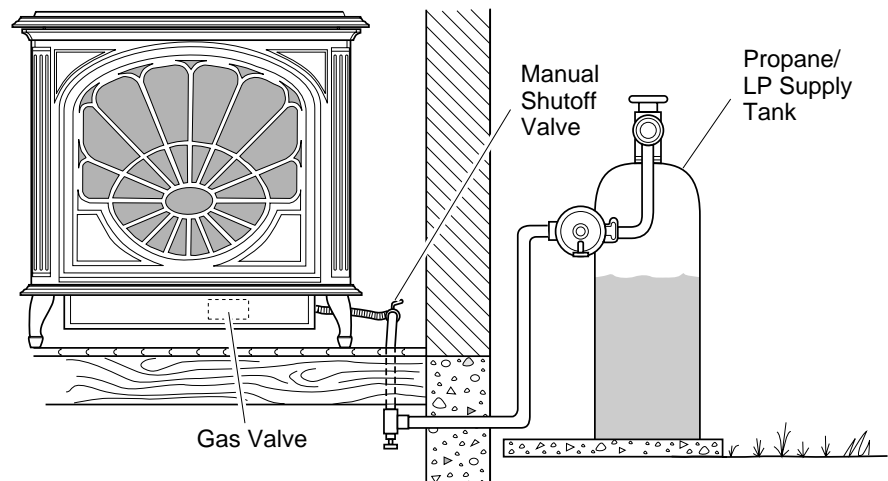
1. Close manual shutoff valve (see Figure 28).
2. Pressurize supply piping system by either opening propane/LP supply tank valve for propane/LP gas fireplace or opening main gas valve located on or near gas meter for natural gas fireplace, or using compressed air.
3. Check all joints from propane/LP supply tank or gas meter to manual shutoff valve (see Figure 29 for propane/LP or Figure 30 for natural). Apply commercial leak test solution to all gas joints. Bubbles forming show a leak. Correct all leaks at once.

#### Pressure Testing Fireplace Gas Connections

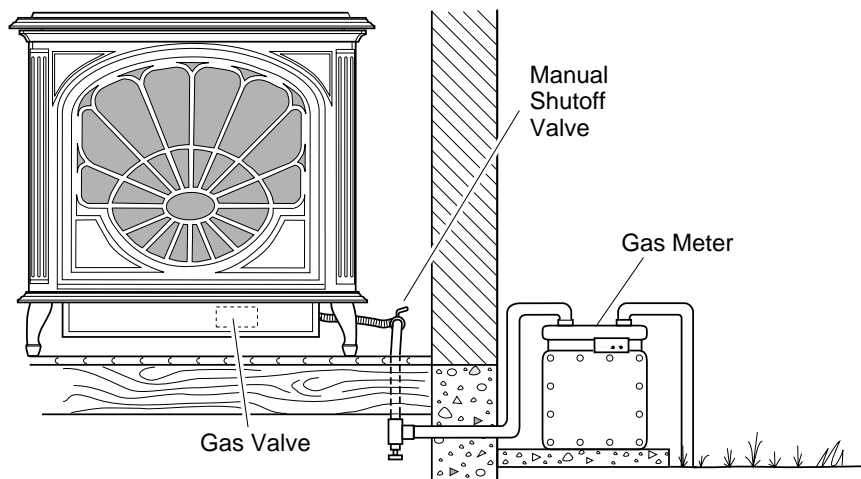
1. Open manual shutoff valve (see Figure 28).
2. Open propane/LP supply tank valve for propane/LP fireplace or main gas valve located on or near gas meter for natural gas fireplace.
3. Make sure control knob of fireplace is in the OFF position.
4. Check all joints from manual shutoff valve to thermostat gas valve (see Figure 29 for propane/LP or Figure 30 for natural). Apply commercial leak test solution to all gas joints. Bubbles forming show a leak. Correct all leaks at once.
5. Light fireplace (see *Lighting Instructions*, page 18). Check all other internal joints for leaks.
6. Turn off fireplace (see *To Turn Off Gas to Appliance*, page 18).



**Figure 28 - Manual Shutoff Valve**



**Figure 29 - Checking Gas Joints for Propane/LP Gas Freestanding Fireplace**



**Figure 30 - Checking Gas Joints for Natural Gas Freestanding Fireplace**

## FIREPLACE INSTALLATION

*Continued*

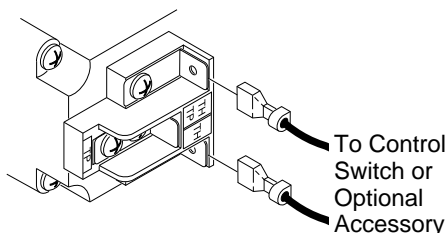
### INSTALLING OPTIONAL WALL MOUNTED THERMOSTAT - GWMT1

**⚠ WARNING:** Installation must be done by a qualified installer familiar with low voltage wiring procedures.

**⚠ WARNING:** Do not connect this thermostat to any electrical source! Electrical shock and/or fire hazard will occur.

1. Open lower door panel. The valve is attached to the underside of the fire-box assembly.
2. Disconnect from the valve the wires running from the ON/OFF switch.
3. Connect one terminal of the wire for the wall thermostat to the THTP terminal on the valve. Connect remaining wire terminal to the TH terminal on the valve. Make sure that the wire terminals are in the positions on the unit as pictured in Figure 31. If wires are not connected as shown the thermostat will not work.
4. Route the wire to a convenient location to mount your thermostat (no outside wall). **IMPORTANT:** The wire must not exceed 25 feet in length.

The thermostat should be mounted 54" above the floor in a location where there is good air circulation. Avoid heat sources such as lamps, direct sunlight, fireplace, or heat and air conditioning ducts.



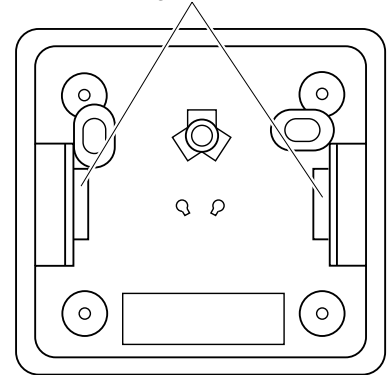
**Figure 31 - Control Valve Terminals**

5. Gently remove the cover of the thermostat from the base. Grasp the sides of the cover firmly and pull to separate from the base.
6. Feed the electrical wires through the rectangular slots (from the back) on each side of the base (see Figure 32).

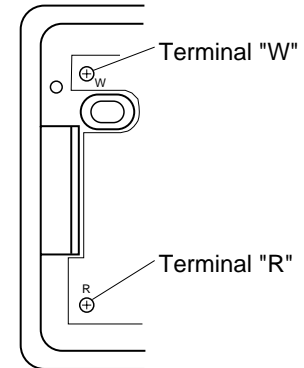
**⚠ WARNING:** Do not connect this thermostat to a power source. Electrical shock and/or fire hazard will occur.

7. Connect one bare wire end to each terminal ("W" and "R") of the thermostat base (see Figure 33).
8. Install the base to the wall with screws provided with thermostat.
9. Move the temperature adjustment back and forth to insure the bi-metal is free from restrictions.
10. Replace the cover onto the base. (Upon installation, the thermostat must be allowed to stabilize at room temperature for a minimum of 30 minutes for proper operation.)
11. Set the temperature adjustment to the desired setting. This thermostat has been electronically calibrated at the factory. No adjustment or leveling is necessary.

Feed wires through rectangular slots



**Figure 32 - Back View of Thermostat Base**



**Figure 33 - Thermostat Base Terminal "W" and "R"**

# VANGUARD

## B-VENT FREESTANDING FIREPLACE

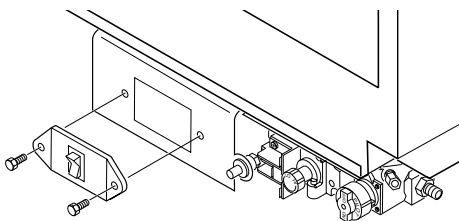
### FIREPLACE INSTALLATION

*Continued*

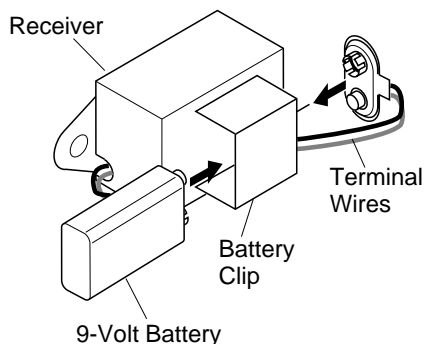
#### INSTALLING OPTIONAL WIRELESS HAND-HELD REMOTE CONTROL ACCESSORIES - GHRC AND GHRCT SERIES

##### Installing Remote Receiver

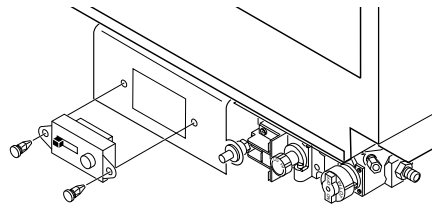
1. Open bottom door on stove body and locate the switch plate on the left of the valve bracket.
2. Unscrew switch plate (see Figure 34).
3. Disconnect wires from THTP and TH on control valve that lead to the switch (see Figure 31, page 15). Discard switch plate, screws, and nuts.
4. Install battery into receiver battery clip and connect to terminals (see Figure 35).
5. Place receiver into valve bracket and align holes (see Figure 36).
6. Use push-in fasteners included with receiver to secure to bracket.
7. Connect the wires from the receiver to the valve at TH and THTP (see Figure 31, page 15).



**Figure 34 - Removing Switch Plate**



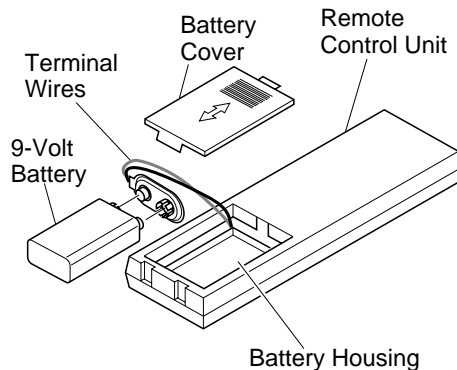
**Figure 35 - Installing Battery in Receiver**



**Figure 36 - Installing Remote Receiver**

##### Installing 9-Volt Battery in Hand-Held Remote Control Unit

1. Remove battery cover on back of remote control unit
2. Attach terminal wires to a 9-volt battery (not included). Place battery into the battery housing.
3. Replace battery cover onto remote control unit.



**Figure 37 - Installing Battery in Hand-Held Remote Control Unit**

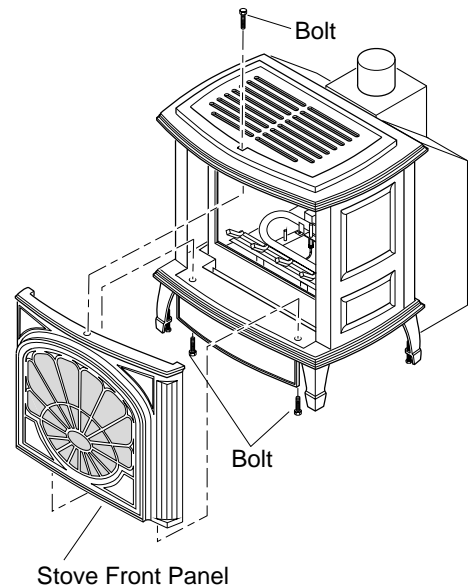
#### REMOVING/REPLACING GLASS DOOR

You must remove glass door to install logs, lava rock, and ember material. To remove glass door, you must first remove the front panel on stove body.

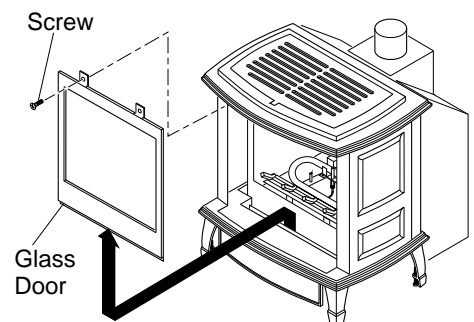
**CAUTION:** Do not operate this fireplace with a broken glass door panel or without the glass door panel securely in place. For replacement part information see **Replacement Parts**, page 25.

1. Remove 2 bolts from bottom of stove and one from the top of stove to remove front panel (see Figure 38).

2. Remove the screws from the 2 tabs at the top of the glass door while holding door securely keeping it from falling forward (see Figure 39).
3. Grasp door by both sides and ease it upward off of the lower bracket (see Figure 39).
4. To replace glass door, follow the above instructions in reverse.



**Figure 38 - Removing Front Panel from Stove**



**Figure 39 - Removing Glass Door from Firebox Insert**



## FIREPLACE INSTALLATION

*Continued*

### INSTALLING LOGS, LAVA ROCK AND GLOWING EMBERS

**⚠ WARNING:** Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this heater may result in property damage or personal injury.

Each log is marked with a number. These numbers will help you identify the log when installing. It is very important to install these logs exactly as instructed. Do not modify logs. Only use logs supplied with freestanding fireplace.

1. Remove glass door. See *Removing/Replacing Glass Door*, page 16.
2. Place log #1 (back log) on top of grate. Make sure the notches in the bottom of the log fit over the grate (see Figure 40).
2. Rest log #2 (large front log) on the pins on the front part of the grate (see Figure 41).
3. Place log #3 (crossover log) onto the rear and front logs. Make sure it is seated properly into the notch on the front log and over the raised triangular portion of the rear log as shown in Figure 42.
4. Place log #4 (small log) onto the front left part of the grate making sure the notches fits over the prong of the grate. See Figure 43.

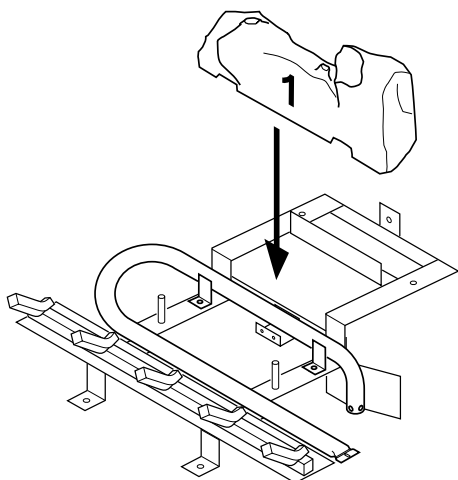


Figure 40 - Installing Log No. 1

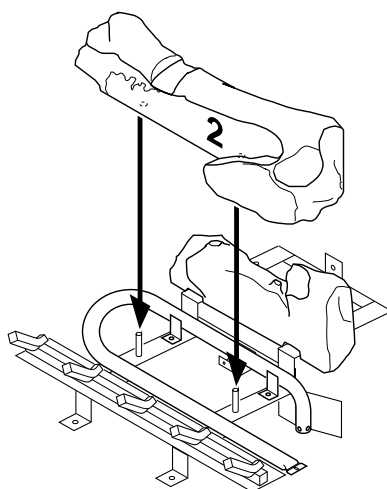


Figure 41 - Installing Log No. 2

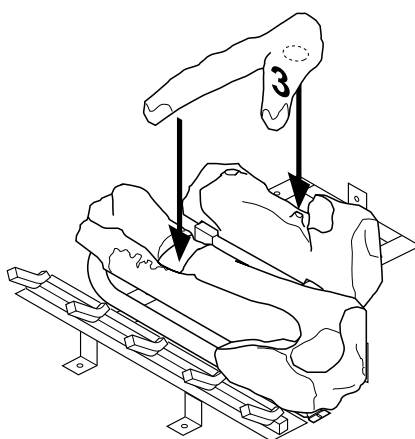


Figure 42 - Installing Log No. 3

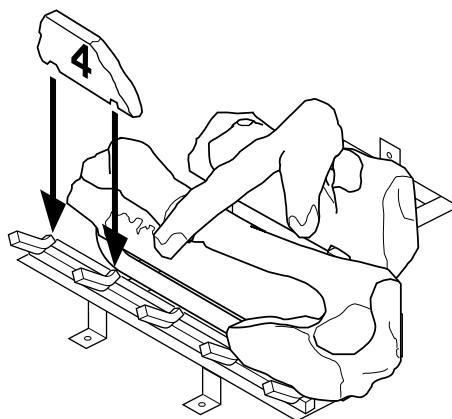


Figure 43 - Installing Log No. 4

5. Lava rock may be placed along sides and front inside firebox bottom. This may not be visible when you have replaced the front of the stove. It is not necessary to use all of the lava rock provided.

**NOTICE:** Do not put lava rock on burner or under burner. Placing lava rock on burner could cause performance problems.

6. Pull ember material apart into pieces no larger than a dime. Place these pieces loosely and sparingly directly onto the exposed section of the front burner and along the space between the burner and grate prongs (see Figure 44). This will create the glowing ember appearance as the flame touches the ember material. Do not block air slots by using too much ember material in one area. It is not necessary to use all of the ember material provided.
7. Replace the glass door and stove front. See *Removing/Replacing Glass Door*, page 16.
8. Place lava rock plate in space between the front of the cast iron stove and the glass front of the insert. Place lava rock on the plate for a decorative appearance. It is not necessary to use all of the lava rock provided.

**⚠ WARNING:** The glass door must be securely in place before running this fireplace. Do not run this fireplace if glass is missing or broken.

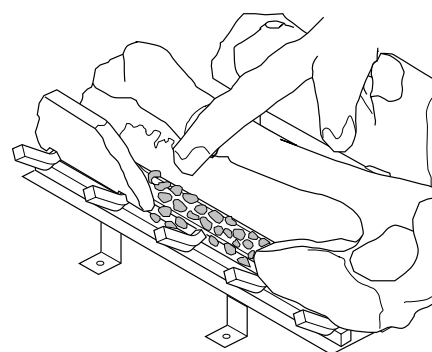


Figure 44 - Placing Ember Material on Burner

# VANGUARD

## B-VENT FREESTANDING FIREPLACE

### OPERATING FIREPLACE

#### FOR YOUR SAFETY READ BEFORE LIGHTING




**⚠ WARNING:** If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- B. **BEFORE LIGHTING** smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.


#### WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
  - Do not touch any electric switch; do not use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

#### LIGHTING INSTRUCTIONS


1. **STOP!** Read the safety information in column one.
2. Open lower panel.
3. Turn ON/OFF switch to "OFF".
4. Turn off all electric power to the fireplace.
5. Push in gas control knob slightly and turn clockwise  to "OFF".
6. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, **STOP!** Follow "B" in the safety information in column one. If you don't smell gas, go to the next step.
7. The pilot is located by the main burner and should not require accessing for lighting.
8. Turn knob on gas control counterclockwise  to "PILOT".
9. Push in control knob all the way and hold. Immediately light the pilot by repeatedly depressing the piezo spark ignitor until a flame appears. Continue to hold for about one (1) minute after the pilot is lit. Release knob and it will pop back. Pilot should remain lit. If it goes out, repeat steps 5 through 8.
  - If knob does not pop up when released, stop and immediately call your service technician or gas supplier.
  - If the pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.
10. Turn gas control counterclockwise  to "ON".
11. Turn on all electric power to the fireplace.
12. Turn the ON/OFF switch to ON position.
13. This valve is equipped with a HI/LO feature. Set fireplace input as desired.
14. Close lower panel.

#### TO TURN OFF GAS TO APPLIANCE

1. Open lower louver panel.
- 2a. Set selector switch in the "OFF" position.
- 2b. **If Using Optional Hand-Held Remote:** Set selector switch in the OFF position to prevent draining battery.
3. Turn off all electrical power to the appliance if service is to be performed.
4. Push in gas control knob slightly and turn clockwise  to "OFF".
5. Close lower panel.

#### Shutting Off Burners Only (pilot stays lit)

You may shut off the burners and keep the pilot lit by doing one of the following:

1. Turn control knob clockwise  to the PILOT position.
2. Set selector switch in the OFF position.

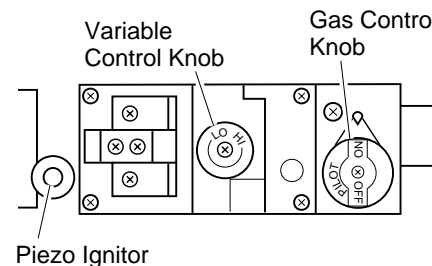


Figure 45 - Control Valve

#### MANUAL LIGHTING PROCEDURE

1. Remove glass door (see *Removing/Replacing Glass Door*, page 16).
2. Follow steps 1 through 8 under *Lighting Instructions*.
3. Depress control knob and light pilot with match.
4. Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob. Now follow steps 10 through 14, column 2.
5. Replace glass door (see *Removing/Replacing Glass Door*, page 16).

## OPERATING FIREPLACE Continued

### OPTIONAL REMOTE OPERATION

**Note:** All remote control accessories must be purchased separately (See *Accessories* on page 27). Follow instructions included with the remote control.

#### Thermostat Control Operation

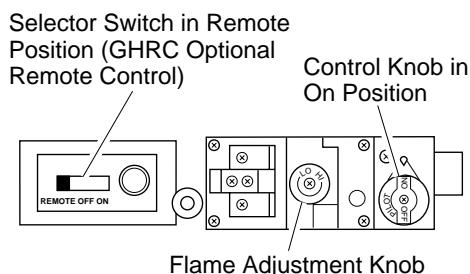
(Optional GHRCT Only) The thermostat control setting on the remote control unit can be set to any comfort level between HI and LO. The burners will turn on and off automatically to maintain the comfort level you select. The ideal comfort setting will vary by household depending upon the amount of space to be heated, the output of the central heating system, etc.

**NOTICE:** You must light the pilot before using the hand-held remote control unit. See *Lighting Instructions*, page 18 .

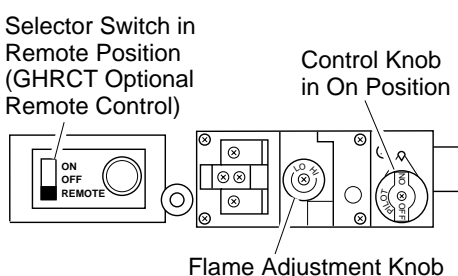
1. After lighting, let pilot flame burn for about one minute. Turn control knob on the control valve to ON position. Turn flame adjustment knob anywhere between HI and LO. Slide the selector switch to the REMOTE position. **Note:** The burners may light if hand-held remote ON button was on when selector switch was last turned off. You can now turn the burners on and off with either optional hand-held remote control unit.

**IMPORTANT:** Do not leave the selector switch in the REMOTE position when the pilot is not lit. This will drain the battery.

**IMPORTANT:** Be sure to press the ON/OFF buttons on the hand-held remote control unit for up to 3 seconds to assure proper operation.



**Figure 46 - Setting the (GHRC) Remote Control Selector Switch, Valve Control Knob, and Flame Adjustment Knob for Remote Operation**



**Figure 47 - Setting the (GHRCT) Selector Switch, control Knob, and Flame Adjustment Knob for Remote Operation**

#### GHRC Series Operation:

- 2a. Press the ON/OFF button to turn the burners on and off. When turning burners off, the pilot will remain lit.

#### GHRCT Series Operation:

- 2b. Select the MAN (manual) or AUTO button on the hand-held remote control unit (see Figure 48).

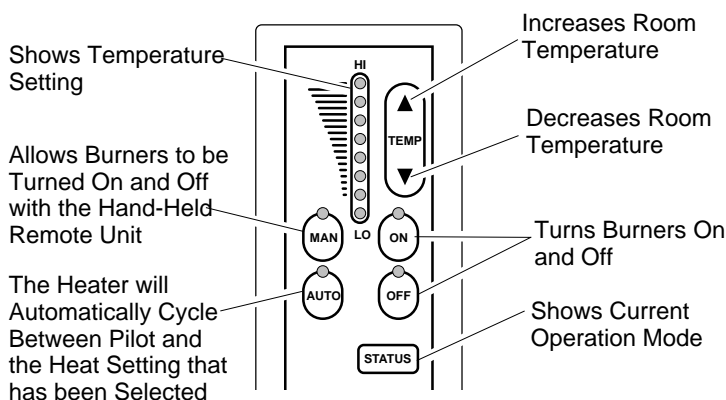
- In manual mode, turn burners on or off by pressing the ON or OFF buttons on the hand-held remote control unit.

- In auto mode, the room temperature is controlled by the thermostat in the hand-held remote control unit. To increase the room temperature, press the top arrow of the TEMP button. To lower the room temperature, press the bottom arrow of the TEMP button. At higher settings the heater will run more.

**IMPORTANT:** This remote control has been specially engineered to take an air temperature sample every 5.5 minutes in auto mode. It will not respond immediately to the temperature setting being turned up or down.

**IMPORTANT:** The hand-held remote control unit must be near the heater but not extremely close to it. The thermostat on the hand-held remote control unit will heat up too quickly and turn the heater off.

3. Use the STATUS button on the hand-held remote control unit to see the operation mode being used and the temperature setting selected. A red light will come on beside the operation mode being used.
4. To turn the burners off when operating in the manual mode, press the OFF button. If operating in the auto mode, press the MAN button, then press the OFF button. The pilot will remain lit. **IMPORTANT:** To turn the pilot off, manually turn the control knob on the heater to the OFF position.



**Figure 48 - Hand-Held Thermostat Remote Control Unit Selections (GHRCT Only)**

*Continued*

# VANGUARD

## B-VENT FREESTANDING FIREPLACE

### OPERATING FIREPLACE

*Continued*

#### OPERATING OPTIONAL GWMT1 WALL MOUNTED THERMOSTAT

**⚠ WARNING:** Do not connect the thermostat to a power source. Electrical shock and/or a fire hazard will occur.

Light the fireplace as instructed in *Lighting Instructions* on page 18. Set wall thermostat to desired temperature.

This thermostat has been electronically calibrated at the factory and requires no adjustment or leveling.

#### OPERATING OPTIONAL BLOWER ACCESSORY

Locate the blower controls by opening the lower louver panel on the fireplace. Blower controls are located on the left side of the switch bracket to the left just inside the louver panel.

Both the GA3700 manual blower and the DA3610T thermostatically-controlled blower have an ON setting and an OFF setting. The blower will only run when the switch is in the ON position. In the OFF position, the blower will not operate.

**Note for DA3610T Only:** If you are using DA3610T blower with optional thermostat (wall mount or remote control) for the fireplace, your fireplace and blower will not turn on and off at the same time. The fireplace may run for several minutes before the blower turns on. After the heater modulates to the pilot position, the blower will continue to run. The blower will shut off after the firebox temperature decreases.

The blower helps distribute heated air from the fireplace. Periodically check the louvers of the firebox and remove any dust, dirt, or other obstructions that will hinder the flow of air.

Upon installation, the thermostat must be allowed to stabilize at room temperature for a minimum of 30 minutes for proper operation.

To turn the fireplace off, adjust thermostat to the lowest setting and turn the gas control knob back to PILOT. The pilot will remain lit.

**IMPORTANT:** To turn the pilot off, turn the control knob on the heater to the OFF position.

### INSPECTING BURNERS

Check pilot flame pattern and burner flame patterns often.

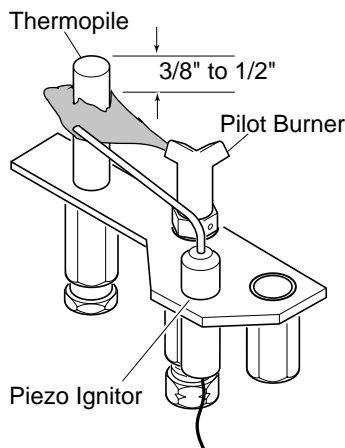
### PILOT ASSEMBLY

The pilot assembly is factory preset for the proper flame height. Alterations may have occurred during shipping and handling. Call a qualified service person to readjust the pilot if necessary.

The height of the thermopile must be 3/8" to 1/2" above the pilot flame as shown in Figure 49. The flame from the pilot burner must extend beyond the thermopile.

If your pilot assembly does not meet these requirements:

- turn fireplace off (see *To Turn Off Gas to Appliance*, page 18)
- see *Troubleshooting*, pages 22 through 24



**Figure 49 - Pilot Assembly**

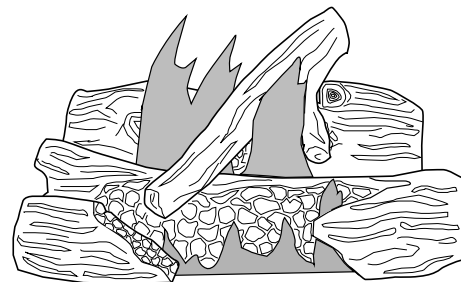
### BURNER FLAME PATTERN

Burner flames will be steady; not lifting or floating. Flame patterns will be different from unit to unit and will vary depending on installation type and weather conditions.

If the vent configuration is installed incorrectly, the flames will lift or “ghost”. This can be dangerous. Inspect the flames after installation to ensure proper installation and performance.

Figure 50 shows a typical flame pattern. If burner flame pattern differs from that described:

- turn fireplace off (see *To Turn Off Gas to Appliance*, page 18)
- see *Troubleshooting*, pages 22 through 24



**Figure 50 - Typical Flame Pattern**

## CLEANING AND MAINTENANCE

**⚠ WARNING:** Turn off fireplace and let cool before cleaning.

**⚠ CAUTION:** You must keep control areas, burners, and circulating air passageways of fireplace clean. Inspect these areas of fireplace before each use. Have fireplace inspected yearly by a qualified service person. Fireplace may need more frequent cleaning due to excessive lint from carpeting, bedding material, pet hair, etc.

### GLASS DOOR

**⚠ WARNING:** Handle glass door panel with care. Do not strike, slam or otherwise abuse glass. Do not operate fireplace with the glass door removed, cracked, or broken.

**⚠ WARNING:** Do not use abrasive cleaners as this may damage glass. Use a non-abrasive household glass cleaner to clean glass. Do not clean glass when hot.

Glass must be cleaned periodically. During start-up it is normal for condensation to form on the inside of the glass causing lint, dust, and other airborne particles to cling to the glass surface. During initial start-up a slight film may form on the glass due to paint curing. The glass should be cleaned several times with a non-amonia, non-abrasive household cleaner and warm water after the first two weeks of operation. Thereafter, clean the glass two or three times during each heating season, depending on the usage and circumstances present. Refer to *Removing/Replacing Glass Door* on page 16 of this manual when removing glass door for cleaning.

**⚠ WARNING:** Only parts supplied by the manufacturer should be used when replacing broken or damaged glass door panel (see *Replacement Parts*, page 25). This glass door panel is a complete unit. No substitute materials may be used.

**⚠ CAUTION:** Wear gloves and safety glasses while handling or removing broken glass. Do not remove if glass is hot. Keep children and pets away from glass.

If glass has been broken, carefully remove glass door (see *Removing/Replacing Glass Door*, page 16). Vacuum all glass pieces with a shop vac.

**⚠ CAUTION:** Do not vacuum if pieces are hot.

Use only the ceramic glass door replacement intended for this fireplace (see *Replacement Parts*, page 25 for details on ordering). No substitutions may be made. See *Removing/Replacing Glass Door*, page 16 for instructions for replacing glass door.

**⚠ WARNING:** Do not operate fireplace with the glass door removed, cracked, or broken.

### PILOT AND BURNERS

- Remove ember material before cleaning burners and replace when cleaning is complete.
- Burner and controls should be cleaned with compressed air to remove dust, dirt, or lint.
- Use a vacuum cleaner or small, soft bristled brush to remove excess dust, dirt, or lint.

### LOGS

- If you remove logs for cleaning, refer to *Installing Logs, Lava Rock, and Glowing Embers*, page 17, to properly replace logs.
- Use a vacuum cleaner to remove any carbon build-up on logs.
- Replace log(s) if broken. See *Replacement Parts* on page 25.
- Replace ember material periodically as needed. See *Replacement Parts* on page 25.

### VENTING SYSTEM

Conduct annual inspection of the venting system following these guidelines:

1. Check areas of venting system that are exposed to the weather for corrosion (rust spots or streaks and, in extreme cases, holes). Have these items replaced immediately by a qualified service person.
2. Remove the vent cap and shine a flashlight into the vent. Remove any foreign material.
3. Check for evidence of excessive condensation. Continuous condensation can cause corrosion of caps, pipes, and fittings and can be caused by having excessive lateral runs, too many elbows, or exterior portions of the system being exposed to cold weather.
4. Inspect joints to verify that no pipe section or fitting has been disturbed and loosened. Check mechanical supports such as wall straps for rigidity.

# VANGUARD

## B-VENT FREESTANDING FIREPLACE

### TROUBLESHOOTING

*Note:* For additional help, visit DESA International's Technical Service web site at [www.desatech.com](http://www.desatech.com).

**⚠ WARNING:** Turn off heater and let cool before servicing. Only a qualified service person should service and repair heater.

**⚠ CAUTION:** Never use a wire, needle, or similar object to clean pilot. This can damage pilot unit.

*Note:* All troubleshooting items are listed in order of operation.

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
When ignitor button is pressed, there is no spark at pilot	<ol style="list-style-type: none"><li>1. Ignitor electrode not connected to ignitor cable</li><li>2. Ignitor cable pinched or wet</li><li>3. Piezo ignitor nut is loose</li><li>4. Broken ignitor cable</li><li>5. Bad piezo ignitor</li><li>6. Ignitor electrode broken</li><li>7. Ignitor electrode positioned wrong</li></ol>	<ol style="list-style-type: none"><li>1. Reconnect ignitor cable</li><li>2. Free ignitor cable if pinched by any metal or tubing. Keep ignitor cable dry</li><li>3. Tighten nut holding piezo ignitor. Nut is located behind the mounting bracket.</li><li>4. Replace ignitor cable</li><li>5. Replace piezo ignitor</li><li>6. Replace pilot assembly</li><li>7. Replace pilot assembly</li></ol>
When ignitor button is pressed, there is spark at pilot but no ignition	<ol style="list-style-type: none"><li>1. Gas supply turned off or manual shutoff valve closed</li><li>2. Control knob not in PILOT position</li><li>3. Control knob not pressed in while in PILOT position</li><li>4. Air in gas lines when installed</li><li>5. Depleted gas supply (propane/LP models only)</li><li>6. Pilot is clogged</li><li>7. Gas regulator setting is not correct</li></ol>	<ol style="list-style-type: none"><li>1. Turn on gas supply or open manual shutoff valve</li><li>2. Turn control knob to PILOT position</li><li>3. Press in control knob while in PILOT position</li><li>4. Continue holding down control knob. Repeat igniting operation until air is removed</li><li>5. Contact local propane/LP gas company</li><li>6. Clean pilot (see <i>Cleaning and Maintenance</i>, page 21) or replace pilot assembly</li><li>7. Replace gas control</li></ol>
Pilot lights but flame goes out when control knob is released	<ol style="list-style-type: none"><li>1. Control knob not fully pressed in</li><li>2. Control knob not pressed in long enough</li><li>3. Manual shutoff valve not fully open</li><li>4. Control valve damaged</li></ol>	<ol style="list-style-type: none"><li>1. Press in control knob fully</li><li>2. After pilot lights, keep control knob pressed in 30 seconds</li><li>3. Fully open manual shut-off valve</li><li>4. Replace control valve</li></ol>

# OWNER'S MANUAL

## TROUBLESHOOTING

### *Continued*

<b>OBSERVED PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>REMEDY</b>
Burner does not light after pilot is lit	<ol style="list-style-type: none"><li>1. Burner orifice clogged</li><li>2. Inlet gas pressure is too low</li><li>3. Thermopile leads disconnected or improperly connected</li><li>4. Thermopile is defective</li></ol>	<ol style="list-style-type: none"><li>1. Clean burner (see <i>Cleaning and Maintenance</i>, page 21) or replace burner orifice</li><li>2. Contact local propane/LP or natural gas company</li><li>3. Reconnect leads (see <i>Wiring Diagram</i>, page 25)</li><li>4. Replace thermopile</li></ol>
Delayed ignition burner	<ol style="list-style-type: none"><li>1. Manifold pressure is too low</li><li>2. Burner porting or orifice clogged</li></ol>	<ol style="list-style-type: none"><li>1. Contact local propane/LP or natural gas company</li><li>2. Clean burner (see <i>Cleaning and Maintenance</i>, page 21) or replace burner orifice</li></ol>
Burner backfiring during combustion	<ol style="list-style-type: none"><li>1. Burner orifice is clogged or damaged</li><li>2. Damaged burner</li><li>3. Gas regulator defective</li></ol>	<ol style="list-style-type: none"><li>1. Clean burner (see <i>Cleaning and Maintenance</i>, page 21) or replace burner orifice</li><li>2. Replace damaged burner</li><li>3. Replace gas control</li></ol>
Slight smoke or odor during initial operation	<ol style="list-style-type: none"><li>1. Residues from manufacturing processes and logs curing</li></ol>	<ol style="list-style-type: none"><li>1. Problem will stop after a few hours of operation</li></ol>
Heater produces a whistling noise when burner is lit	<ol style="list-style-type: none"><li>1. Turning control knob to HI position when burner is cold</li><li>2. Air in gas line</li><li>3. Dirty or partially clogged burner orifice</li></ol>	<ol style="list-style-type: none"><li>1. Turn control knob to LO position and let warm up for a minute</li><li>2. Operate burner until air is removed from line. Have gas line checked by local propane/LP or natural gas company</li><li>3. Clean burner (see <i>Cleaning and Maintenance</i>, page 21) or replace burner orifice</li></ol>
Glass soots	<ol style="list-style-type: none"><li>1. Flame impingement on logs</li><li>2. Debris around burner air mixer</li></ol>	<ol style="list-style-type: none"><li>1. Adjust the log set so that the flame does not excessively impinge on it</li><li>2. Inspect the opening at the base of the burner to see that it is NOT packed with any type of material</li></ol>
Fireplace produces a clicking/ticking noise just after burners are lit or shut off	<ol style="list-style-type: none"><li>1. Metal expanding while heating or contracting while cooling</li></ol>	<ol style="list-style-type: none"><li>1. This is common. If noise is excessive, contact qualified service person</li></ol>
Remote does not function	<ol style="list-style-type: none"><li>1. Battery is not installed or battery power is low</li></ol>	<ol style="list-style-type: none"><li>1. Replace 9-volt batteries in receiver and remote control</li></ol>

# VANGUARD

## B-VENT FREESTANDING FIREPLACE

### TROUBLESHOOTING

*Continued*

- ⚠ WARNING: If you smell gas**
- Shut off gas supply.
  - Do not try to light any appliance.
  - Do not touch any electrical switch; do not use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.

**IMPORTANT:** Operating fireplace where impurities in air exist may create odors. Cleaning supplies, paint, paint remover, cigarette smoke, cements and glues, new carpet or textiles, etc., create fumes. These fumes may mix with combustion air and create odors. These odors will disappear over time.

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Fireplace produces unwanted odors	1. Gas leak. <b>See Warning statement above</b>	1. Locate and correct all leaks (see <i>Checking Gas Connections</i> , page 13)
Fireplace shuts off in use	1. High or gusting winds 2. Low line pressure 3. Pilot is partially clogged 4. Inner vent pipe leaking exhaust gasses into system 5. Glass too loose and air tight gasket leaks in corners after usage 6. Bad thermopile 7. Improper vent cap installation	1. Fireplace has been tested for up to 40mph winds. However, extreme conditions may occur. See <i>Lighting Instructions</i> on page 18. 2. Contact local propane/LP or natural gas company 3. Clean pilot (see <i>Cleaning and Maintenance</i> , page 21) 4. Locate and correct all leaks (see <i>Checking Gas Connections</i> , page 13) 5. Tighten glass 6. Replace faulty component 7. Check for proper installation and freedom from debris or blockage
Gas odor even when control knob is in OFF position	1. Gas leak. <b>See Warning statement above</b> 2. Control valve defective	1. Locate and correct all leaks (see <i>Checking Gas Connections</i> , page 13) 2. Replace control valve
Gas odor during combustion	1. Gas leak. <b>See Warning statement above</b>	1. Locate and correct all leaks (see <i>Checking Gas Connections</i> , page 13)
Dark residue on logs or inside of fireplace	1. Improper log placement 2. Air holes at burner inlet blocked 3. Burner flame holes blocked	1. Properly locate logs (see <i>Installing Logs, Lava Rock, and Glowing Embers</i> , page 17) 2. Clean out air holes at burner inlets. Periodically repeat as needed 3. Remove blockage or replace burner



## REPLACEMENT PARTS

*Note:* Use only original replacement parts. This will protect your warranty coverage for parts replaced under warranty.

### PARTS UNDER WARRANTY

Contact authorized dealers of this product. If they can not supply original replacement part(s), call DESA International's Technical Service Department at 1-800-DESA LOG (1-800-337-2564).

When calling DESA International, have ready

- your name
- your address
- model and serial numbers of your fireplace
- how fireplace was malfunctioning
- type of gas used (propane/LP or natural gas)
- purchase date

Usually, we will ask you to return the defective part to the factory.

### PARTS NOT UNDER WARRANTY

Contact authorized dealers of this product. If they can not supply original replacement part(s), call DESA International's Parts Department at 1-800-972-7879 for referral information.

When calling DESA International, have ready

- model number of your fireplace
- the replacement part number

## TECHNICAL SERVICE

You may have further questions about installation, operation, or troubleshooting. If so, contact DESA International's Technical Service Department at 1-800-DESA LOG (1-800-337-2564).

You can also visit DESA International's Technical Service web site at [www.desatech.com](http://www.desatech.com).

## WIRING DIAGRAM

**CAUTION:** Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

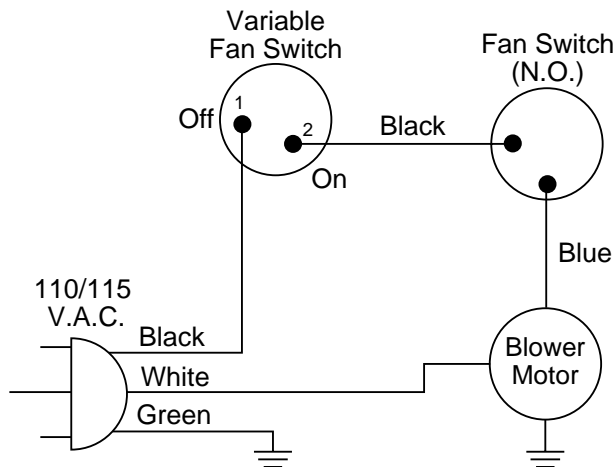


Figure 51 - Blower Wiring Diagram for Thermostat-Controlled Models

## SERVICE HINTS

### When Gas Pressure is Too Low:

- pilot will not stay lit
- burners will have delayed ignition
- fireplace will not produce specified heat
- propane/LP gas supply might be low (propane/LP units only)

### When Gas Quality is Bad:

- pilot will not stay lit
- burners will produce flames and soot
- fireplace will backfire when lit

If you feel your gas pressure is too low or gas quality is bad, contact your local natural or propane/LP gas supplier.

# VANGUARD®

## B-VENT FREESTANDING FIREPLACE

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### SPECIFICATIONS

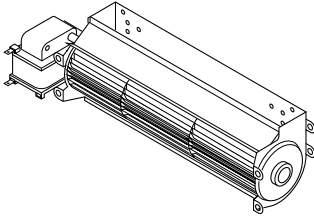
	<b>SBVBN(A)</b>	<b>SBVBP(A)</b>
	17,000-24,000 Btu/h	16,000-22,000 Btu/h
Gas Type	Natural	Propane/LP
Ignition	Piezo	Piezo
Manifold Pressure	3.5" w.c.	10.0" w.c.
Minimum Inlet Supply Pressure	4.5" w.c.	11.0" w.c.
Thermal Efficiency	70%	70%
Dimension, Inches/mm (HxWxD) Fireplace*	27" x 26" x 25" 685.8 x 660.4 x 635mm	27" x 26" x 25" 685.8 x 660.4 x 635mm
Carton (Insert Only)	23" x 33" x 23" 584.2 x 838.2 x 584.2mm	23" x 33" x 23" 584.2 x 838.2 x 584.2mm
Weight, lbs/kg Fireplace	70 lbs/31.8 kg	70 lbs/31.8 kg
Shipping	75 lbs/34 kg	75 lbs/34 kg

\* When installed in Amity cast iron stove body (SCIVF Series and PSCIVF Series).

# OWNER'S MANUAL

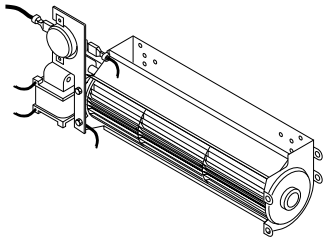
## ACCESSORIES

Purchase these fireplace accessories from your local dealer. If they can not supply these accessories, call DESA International's Sales Department at 1-800-432-2382, for information. You can also write to the address listed on the back page of this manual.



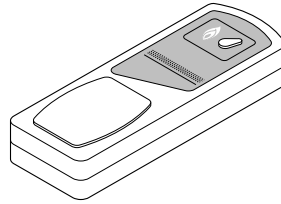
### MANUAL BLOWER KIT GA3700

Manual-variable control blower accessory for both the SBVBN(A) and SBVBP(A) Series fireplaces.



### THERMOSTATICALLY- CONTROLLED BLOWER KIT DA3610T

Provides better heat distribution. Blower turns off and on automatically, as needed. Complete installation and operation instructions included in this manual.

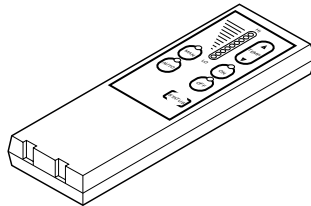


### WALL MOUNTED THERMOSTAT CONTROL KIT GWMT1 (Not Shown)

Allows easy wall access to the operation of your fireplace. This will allow you thermostatic control with the convenience of a wall switch.

### RECEIVER AND HAND-HELD REMOTE CONTROL KIT GHRC

For all models. Allows the heater to be turned on and off conveniently.



### RECEIVER AND HAND-HELD THERMOSTAT REMOTE CONTROL KIT - GHRCT

Allows the fireplace to be operated in a manually or thermostatically controlled mode. You can adjust your heat settings and turn the heater on or off without leaving the comfort of your easy chair. (Requires part no. 103284-04 wire harness included with fireplace.)

### WALL MOUNTED ON/OFF SWITCH - GWMS2 (Not Shown)

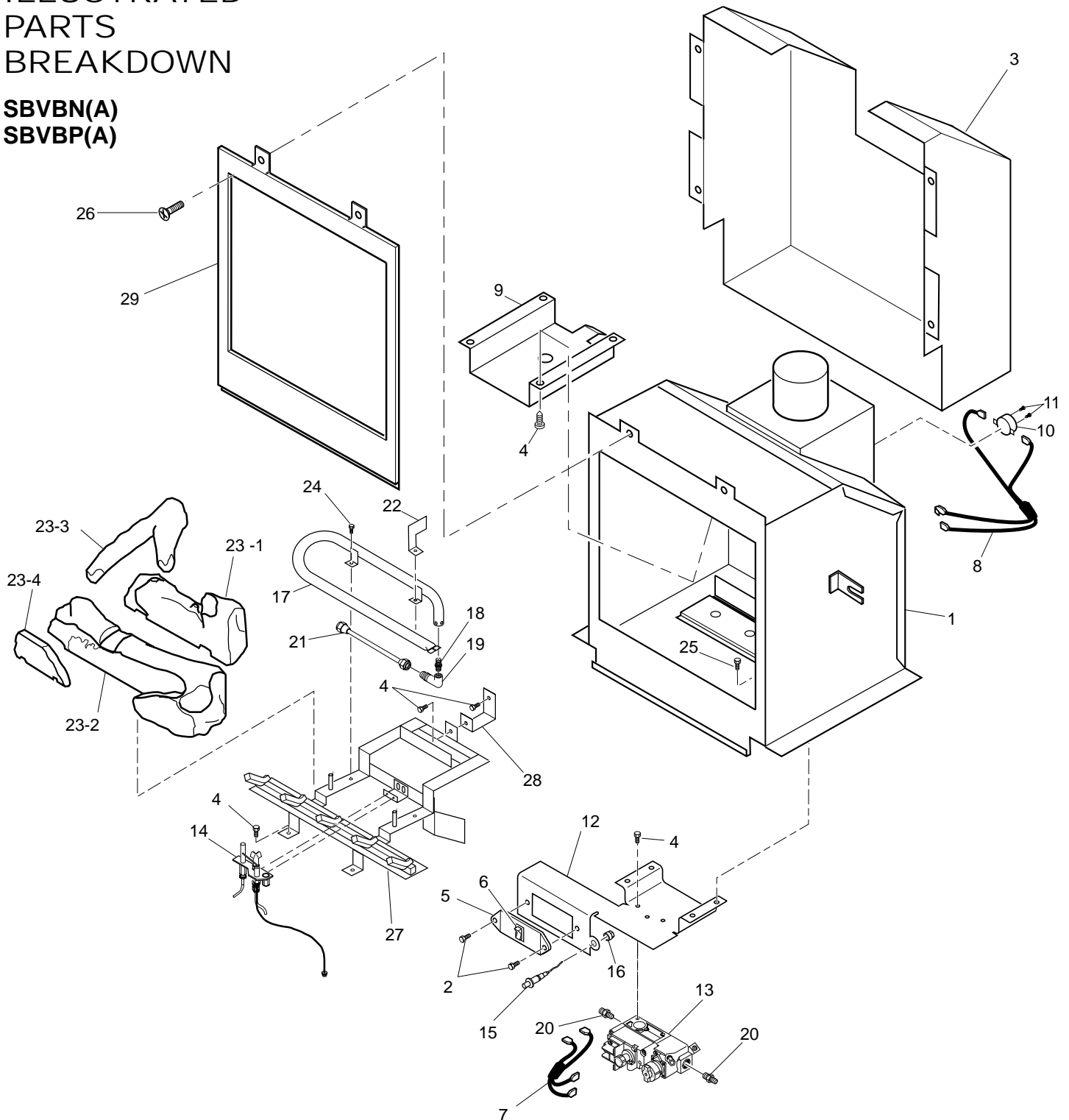
Allows heater to be turned on and off with a wall switch.

# VANGUARD

## B-VENT FREESTANDING FIREPLACE

### ILLUSTRATED PARTS BREAKDOWN

SBVBN(A)  
SBVBP(A)



# OWNER'S MANUAL

## PARTS LIST

This list contains replaceable parts used in your fireplace. When ordering parts, follow the instructions listed under *Replacement Parts* on page 25 of this manual.

**SBVBN(A)**  
**SBVBP(A)**

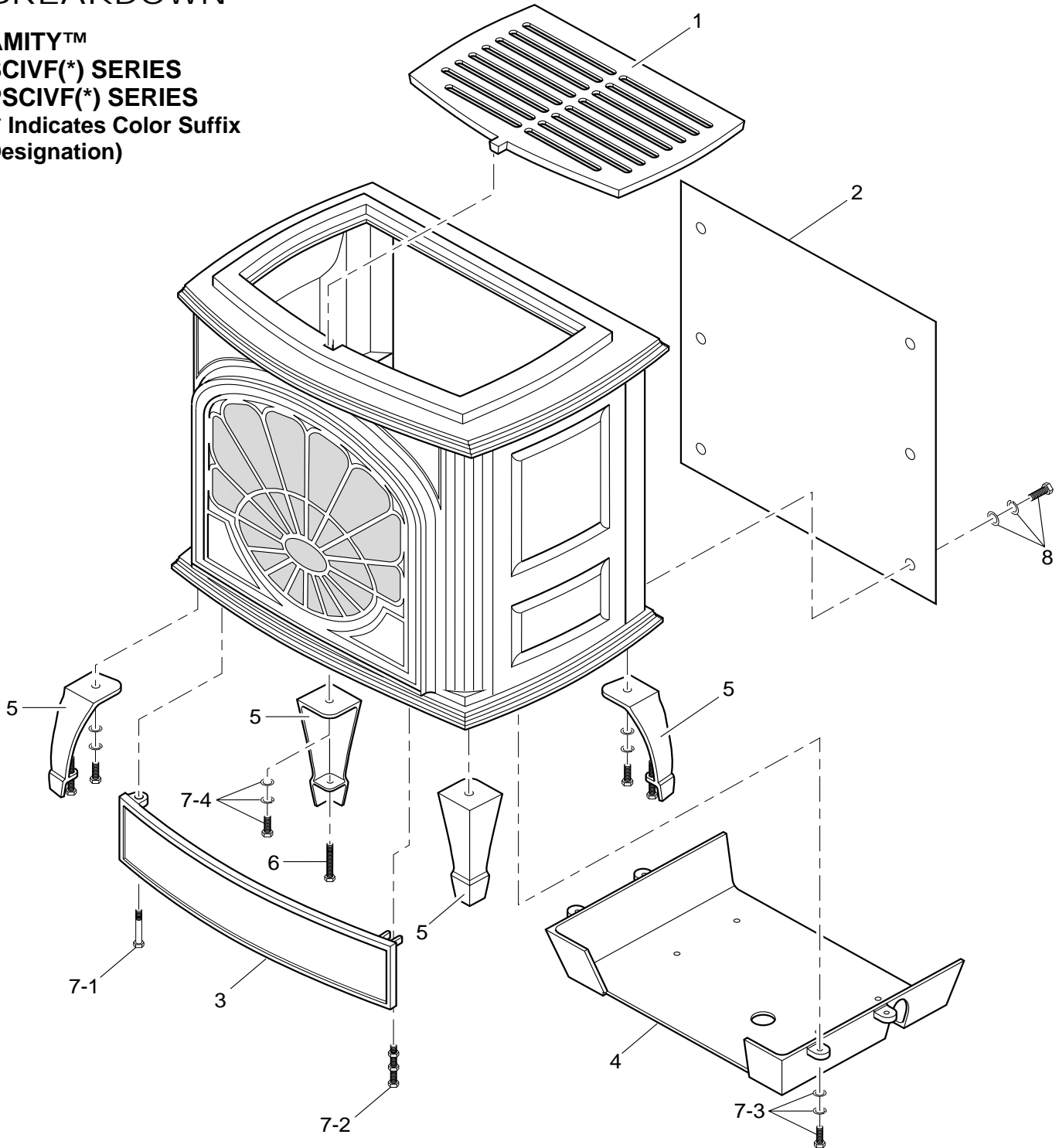
KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	105479-01BR	Firebox Assembly	1
2	M11084-26	Screw, Hex	2
3	105484-01CK	Rear Cover	1
4	M11084-39	Screw, Hex	12
5	103587-02CK	Switch Plate	1
6	099998-01	On/Off Switch	1
7	103284-04	Wire Harness	1
8	103284-06	Wire Harness	1
9	105812-01BR	Baffle	1
10	105494-01	Spillswitch	1
11	M11084-43	Switch Screw	2
12	105468-01	Valve Bracket	1
13	105489-01	Valve, Natural	1
	105489-02	Valve, Propane/LP	1
14	105488-01	Pilot Assembly, Natural	1
	105488-02	Pilot Assembly, Propane/LP	1
15	102445-01	Ignitor, Piezo	1
16	102334-01	Palnut Fastener	1
17	105523-01	Burner, Natural	1
	105523-02	Burner, Propane/LP	1
18	104506-03	Orifice, Natural	1
	104506-04	Orifice, Propane/LP	1
19	104507-01	Brass Elbow	1
20	104508-01	Brass Fitting	2
21	105493-01	Aluminum Tubing Assy	1
22	105325-01	Air Deflector	1
23	105491-01	Log Set	1
23-1	105774-01	Rear Log	1
23-2	105774-02	Front Log	1
23-3	105774-03	Crossover Log	1
23-4	105774-04	Log Piece	1
24	M10908-2	Screw	2
25	M12461-50	Screw	3
26	M12461-62	Screw	2
27	104555-03CJ	Grate Assembly	1
28	105483-01	Burner Bracket	1
29	105795-01	Glass Door Assy	1
<b>PARTS AVAILABLE - NOT SHOWN</b>			
	105476-01	Lava Rock Plate	1
	GA6060	Lava Rock	1
	104529-01	Ember Material	1
	M11084-3	Hex Screw for Blower Bracket	4

# VANGUARD

## AMITY™ STOVE CHASSIS

### ILLUSTRATED PARTS BREAKDOWN

AMITY™  
SCIVF(\*) SERIES  
PSCIVF(\*) SERIES  
(\* Indicates Color Suffix  
Designation)



# OWNER'S MANUAL

## PARTS LIST

This list contains replaceable parts used in your stove. When ordering parts, follow the instructions listed under *Replacement Parts* on page 25 of this manual.

**AMITY™**

**SCIVF(\*) SERIES**

**PSCIVF(\*) SERIES**

(\* Indicates Color Suffix Designation)

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	104171-01	Top Grate with Screen (Black Only)	1
2	104172-01	Stove Back Panel (Black Only)	1
3	104173-01	Bottom Door (Charcoal)	1
	104173-02	Bottom Door (Azure Blue)	1
	104173-03	Bottom Door (Hunter Green)	1
	104173-04	Bottom Door (Burgundy Red)	1
	104173-05	Bottom Door (Forest Green)	1
	104173-06	Bottom Door (Metallic Charcoal)	1
	104173-07	Bottom Door (Porcelain Enamel Red)	1
	104173-08	Bottom Door (Porcelain Enamel Teal Green)	1
	104173-09	Bottom Door (Porcelain Enamel Sand)	1
4	104174-01	Stove Dropped Bottom	1
5	104175-01	One Leg (Charcoal) (4 Total Per Stove)	1
	104175-02	One Leg (Azure Blue) (4 Total Per Stove)	1
	104175-03	One Leg (Hunter Green) (4 Total Per Stove)	1
	104175-04	One Leg (Burgundy Red) (4 Total Per Stove)	1
	104175-05	One Leg (Forest Green) (4 Total Per Stove)	1
	104175-06	One Leg (Metallic Charcoal) (4 Total Per Stove)	1
	104175-07	One Leg (Porcelain Enamel Red) (4 Total Per Stove)	1
	104175-08	One Leg (Porcelain Enamel Teal Green) (4 Total Per Stove)	1
	104175-09	One Leg (Porcelain Enamel Sand) (4 Total Per Stove)	1
6	104176-01	Leg Leveler bolt M8 x 1.25 - 55mm Long (4 Total Per Stove)	1
7	104177-01	Hardware Kit	1
7-1	*	Door Hinge Step Bolt With Shoulder (1 Per Unit)	1
7-2	*	Door Catch Bolt M8 x 1.25 - 55mm Long With Two M8 Hex Nuts (1 Per Unit)	1
7-3	*	Bottom Floor Bolts M6 x 1 - 25mm Long With Flat Washer And Lock Washer (4 Per Unit)	1
7-4	*	Leg Bolts M6 x 1.25 - 20mm Long With Flat Washer And Lock Washer (4 Per Unit)	1
8	104178-01	Back Panel Bolts M6 x 1 - 20mm Long With Flat Washer And Lock Washer (6 Per Unit)	1
<b>PARTS AVAILABLE — NOT SHOWN</b>			
	104108-01	Touch-up Spray Paint 12 oz Can (Charcoal)	1
	104108-02	Touch-up Spray Paint 12 oz Can (Azure Blue)	1
	104108-03	Touch-up Spray Paint 12 oz Can (Hunter Green)	1
	104108-04	Touch-up Spray Paint 12 oz Can (Burgundy Red)	1
	104108-05	Touch-up Spray Paint 12 oz Can (Forest Green)	1
	104108-06	Touch-up Spray Paint 12 oz Can (Metallic Charcoal)	1
	104807-01	Touch-up Paint Bottle with Brush (Porcelain Enamel Red)	1
	104807-02	Touch-up Paint Bottle with Brush (Porcelain Enamel Teal Green)	1
	104807-03	Touch-up Paint Bottle with Brush (Porcelain Enamel Sand)	1

\* Included In Hardware Kit

# WARRANTY INFORMATION

KEEP THIS WARRANTY

Model _____
Serial No. _____
Date Purchased _____

Always specify model and serial numbers when communicating with the factory.

We reserve the right to amend these specifications at any time without notice. The only warranty applicable is our standard written warranty. We make no other warranty, expressed or implied.

## LIMITED WARRANTY B-VENT FREESTANDING FIREPLACE AND AMITY™ STOVE CHASSIS

DESA International warrants this product to be free from defects in materials and components for four (4) years from the date of first purchase, provided that the product has been properly installed, operated and maintained in accordance with all applicable instructions. To make a claim under this warranty the Bill of Sale or cancelled check must be presented.

This warranty is extended only to the original retail purchaser. This warranty covers the cost of part(s) required to restore this heater to proper operating condition and an allowance for labor when provided by a DESA Authorized Service Center. Warranty part(s) MUST be obtained through authorized dealers of this product and/or DESA International who will provide original factory replacement parts. Failure to use original factory replacement parts voids this warranty. The heater MUST be installed by a qualified installer in accordance with all local codes and instructions furnished with the unit.

This warranty does not apply to parts that are not in original condition because of normal wear and tear, or parts that fail or become damaged as a result of misuse, accidents, lack of proper maintenance or defects caused by improper installation. Travel, diagnostic cost, labor, transportation and any and all such other costs related to repairing a defective heater will be the responsibility of the owner.

TO THE FULL EXTENT ALLOWED BY THE LAW OF THE JURISDICTION THAT GOVERNS THE SALE OF THE PRODUCT; THIS EXPRESS WARRANTY EXCLUDES ANY AND ALL OTHER EXPRESSED WARRANTIES AND LIMITS THE DURATION OF ANY AND ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE TO FOUR (4) YEARS ON ALL COMPONENTS FROM THE DATE OF FIRST PURCHASE; AND DESA INTERNATIONAL'S LIABILITY IS HEREBY LIMITED TO THE PURCHASE PRICE OF THE PRODUCT AND DESA INTERNATIONAL SHALL NOT BE LIABLE FOR ANY OTHER DAMAGES WHATSOEVER INCLUDING INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

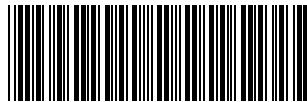
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This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

For information about this warranty write:

**DESA**  
**INTERNATIONAL**

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P.O. Box 90004  
Bowling Green, KY 42102-9004  
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